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LOCUS OF CONTROL BELIEFS, TERRITORIALITY AND FEELINGS OF SAFETY IN ELDERLY URBAN WOMEN

by

Janice Normoyle

A Thesis Submitted to the Faculty of the Graduate School of Loyola University of Chicago in Partial Fulfillment of the Requirements for the Degree of Master of Arts

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VITA

The author, Janice Normoyle, is a lifelong resident of the Chicago metropolitan area.

In June, 1967, she entered the University of Illinois at Circle Campus and in December, 1970, received the degree of Bachelor of Arts with a major in secondary education and history.

In January, 1968, she began employment with Internal Revenue Service pursuing a career as a treasury agent until her resignation in September, 1975. While employed, she continued her education on a part-time basis at Loyola University of Chicago, Northwestern University and Roosevelt University. She earned an additional 60 hours of credit in accounting and psychology.

In September, 1976, she was granted a research assistantship in the Applied Social Psychology Division at Loyola University of Chicago, where she is currently enrolled as a graduate student.

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INTRODUCTION AND REVIEW OF THE LITERATURE

Considerable attention has been focused in the last several years on the crime problems facing the elderly (Skogan, Note 1). One issue of special concern is their fear. The elderly feel less safe than any other age group in the population and appear to be growing more fearful over time (Adams & Smith, 1976). The effects of fear are particularly harsh among elderly women whose homes have often taken on the qualities of a prison. However, the basis or processes underlying their fear are not well understood.

The extent of fear of crime among the elderly exceeds the degree to which they are, in fact, victims and ranks easily as one of their greatest concerns (Bild & Havighurst, 1975; Signer, 1977). While contradictory findings had been evident in the victimization data for the over-65 age group, some trends are apparent. Earlier studies suggest that the elderly suffered a higher incident rate for certain crimes than other residents in urban centers. At the same time, their victimization rates for personal crime (versus property crime) were thought to be lower (Butler, 1975; Cunningham, 1975; Goldsmith & Goldsmith, 1975; Goldsmith & Tomas, 1974; U.S. Department of Justice, 1975). Utilizing large national samples, more recent work indicates that the elderly are less likely to be victimized for most serious crime (among them, robbery, burglary and assault) and suffer no more incidents in other crime categories (such as purse snatch) than other age groups (Cook, 1976; Cook & Cook, 1976).

Cook, Skogan, Cook and Antunes (1978) have examined the prevalent notion that the physical and economic consequences of crime on the elderly are more severe than for others, thus explaining their greater fear. Again, data from large national surveys have been used and the findings are mixed. In general, the elderly do not suffer more severe physical injuries nor lose larger absolute dollar sums from crime. However, their financial losses relative to income are greater than for some other age groups.

The economic hardship argument advanced by Cook et al. does not seem to be reflected in the perceptions the elderly hold about themselves. Older respondents in a recent Chicago metropolitan area survey neither viewed the risk of victimization as more likely nor the consequences of victimization as more serious than their younger counterparts (Lavrakas, Note 2). Consequently, the notion that the elderly are a special case of victimization does not tend to be supported when based on incident rates, outcomes of criminal activities and perceptions about vulnerability.

The conventional explanations do not seem to account for the elderly's extraordinary fear. There is a clearer idea of what this fear does not represent and little understanding of what it might be. The need for investigating the dynamics underlying feelings of safety is apparent.

Patterson (1977, 1978) approached the problem by examining the relationship between the elderly's feelings of safety in various settings and their territorial attitudes and behaviors. His findings indicated

that a greater sense of safety is associated with increased territorial behavior and perceptions. Patterson suggested that territorial behavior contributes to mastering the environment.

Territoriality refers to a constellation of feelings, attitudes and behaviors about one's home or claimed space. The activities hypothesized to represent territoriality serve not only to identify the property as owned, but their intent is to exclude others from claiming and using the space. The behaviors that are exhibited toward property include both concrete and symbolic elements. For example, shrubbery or a fence define the boundaries of ownership; peepholes or other surveillance devices and "keep out" signs provide some defense against intrusion; personalizations in painting and decoration label the area as owned. Territorial attitudes often reflect a sense of possession, responsibility and a perception of the physical space as an extension of oneself.

Since the domain of territorial activities involves managing the environment, the concept of locus of control seems to offer a promising perspective for understanding territoriality and its relationship to feelings of safety. Locus of control is the term used to describe an individual's beliefs about the arbitrariness of events in the environment and the extent to which one can exercise personal control. These issues are particularly pertinent to the elderly. The problems of aging affect the degree to which one can exercise mastery over and derive security from the environment (Neugarten, 1968). Crime serves only to exacerbate the difficult tasks facing the elderly, especially the

elderly woman. The severity of their fear may reflect not only a reaction to real dangers but also to the assaults to control one may exert and the sense of order one seeks in the environment.

The purpose of the present study is to explore in greater depth the relationships among locus of control beliefs, territoriality and feelings of safety among elderly urban women. It is hypothesized that locus of control beliefs are the process variables underlying the relationship between territoriality and the safety felt in various settings. The proposed relationships may be summarized as follows:

(a) territorial attitudes are a function, in part, of the extent to which one perceives elements of the environment to be predictable and the extent to which one feels personal control is possible;

(b) feelings of safety are a function, in part, of the extent to which territorial attitudes are adopted;

(c) feelings of safety are a function, in part, of the extent to which one perceives the environment as orderly and expects to exercise personal control; and

(d) feelings of safety may be predicted from the direct influence of these locus of control beliefs and their indirect contribution expressed in territorial attitudes.

Because these issues have received little treatment, support for these hypotheses may be found through inference in the literature.

Locus of Control

The relationship between perceived control in a laboratory situation and positive consequences for the individual is well-documented. The experimental paradigm involves manipulating the individual's feelings of control over elements in the environment through some communication or presentation of choices he may exercise. In this manner, Corah and Boffa (1970) found that subjects who were given the choice of pressing a button to abort aversive noise viewed the threatening stimuli as less noxious than subjects who had no choice. Furthermore, a reduction in one's control over aversive outcomes is accompanied by increased distress and anxiety (Geer, Davison & Gatchel, 1970; Pervin, 1963).

The facilitating effects of control over features of one's situation have been demonstrated in field, as well as laboratory, settings. Langer, Janis and Wolfer (1975) have found, for example, that hospital patients induced to perceive increased cognitive control over their discomfort, later requested fewer pain relievers and exhibited less anxiety. Aged residents of a Connecticut nursing home who were assigned greater responsibility and decision freedom about their daily activities reported greater happiness and were seen as more active than residents continuing on their regular schedule. The experimental residents spent considerably more time visiting each other and people residing outside the center and talking to staff, while decreasing the time engaged in more passive activities like television-watching (Langer & Rodin, 1976). In this instance, the control arena introduced to the

elderly patients involved simply the decision whether or not to take a plant and assume responsibility for its care.

The influence of control on one's sense of well-being is such that the mere belief that one can exercise options or impact on outcomes appears sufficient. Even when the operation of choice is essentially inconsequential for a situation governed by chance, the perception of and opportunity to pick from alternatives has psychological consequences for the individual. Langer (1975) found that subjects experienced increased confidence and a willingness to indulge in greater positive risk-taking. Further, the false perception of control mitigates the aversiveness of imminently threatening stimuli (Bowers, 1968; Kanfer & Seidner, 1973).

The finding that psychological and behavioral facilitation is not affected when actual control does not, in fact, exist suggests that the construct of locus of control (Rotter, 1966) has important implications for the impact and manner with which one copes with problem situations. The construct of locus of control is used to describe the generalized expectations the individual has about the effectiveness and consequences of his own behavior. The attribution of control differs as a function of the predictability perceived in events. An individual may be said to display an internal locus of control when he holds the belief that a relationship exists between his activities and their outcomes. That is, an individual who experiences orderliness or a means by which manageability may be obtained also has an expectation that the environment is open to personal manipulation. One who expects to be under the control

of others and who perceives no relationship between his efforts and reinforcement contingencies exhibits an external locus of control (Rotter, 1966).

The expectations about the relationship between one's behavior, its contingencies and subsequent results may be affected by whether the cues utilized to predict outcomes reside in the individual or in the environment. Some settings, such as one's home, are viewed as operating according to more regular and stable patterns; cues attributed to such an environment promote a sense of orderliness and control. Other situations demand that the individual act on and structure the elements of the environment; the cues located in the individual, his belief about his own effectiveness and the perceived relationship between his behaviors and their outcomes, are then more salient and determine whether he instigates the mechanisms of control. Internal-external locus of control, then, operates along two distinct dimensions--(a) the degree to which events are perceived as predictable or random and (b) whether it is situational or predispositional cues that are important for prediction of outcomes.

Collins (1974), for example, found four distinctive world views compatible with and elaborating on this interactive conceptualization. The belief systems are derived by the position of an individual along both dimensions and represent the individual-environment interaction. They were identified using the techniques of factor analysis to examine responses to the full Rotter scale and are summarized as follows:

(a) The Difficult World. The individual experiences the environment as consisting of difficult and even unsolvable tasks. As a result, he is prevented from exercising control by the very nature of the environment. This system reflects external control with external attribution of cause.

(b) The Just-Unjust World. For this individual, the world is no less complex. However, there exists a direct relationship between an individual's behavior and its consequences. Thus, it is the responsibility of the individual to appropriately evaluate the cues in mastering the environment. The important cues are derived from the situation, while responsibility for coping lies with the individual.

(c) The Unpredictable World. The relationship between behavior and reward is unreliable, predicated in great measure by luck. As a result, an outcome may be inequitable and unfair.

The fourth view, termed the Politically Responsive-Unresponsive World, contains both internal and external beliefs and reflects a faith in the political responsiveness of the environment. The tenor of this perspective is similar to and may describe a specific instance of the Just-Unjust World.

It is not reasonable to assume that all tasks consist of the same level of difficulty, nor potential for solution. For individuals adopting the Difficult or Unpredictable World orientations, however, there appears to be an inability to discriminate among and separate into manageable bits the cues that are present. In the one case, all stimuli are overwhelmingly complex, with no perception of those elements one can

expect to influence. In the other instance, the regularity of sub-patterns operating in a seemingly chancy situation are not apparent. The individual's expectation about how the world really is is prejudicially applied to the environment. As a consequence, an appropriate response to its various features is never accomplished. This is not the case with the assumption of a Just World. Specific circumstances give rise to differential expectations for control. These expectations lead to decisions about whether one attempts to exercise control and the efficiency with which control is expressed (Cromwell, Rosenthal, Shakow & Zahn, 1961; DuCette & Wolk, 1973; Johnson, 1974). Because coping with stressors or resolving problem situations demands accuracy in reading environmental cues, an internal locus of control should lead to an enhancement of situation-specific problem-solving skills. Those processes or belief systems that allow the externally-directed person to miss or exclude data should result in diminished abilities to work out and resolve problems.

The relationship between locus of control and instrumental behavior has not been rigorously examined with the kinds of stressors and problems facing individuals in their daily lives. However, the available findings in seat-belt usage and smoking, for example, were in the expected direction (James, Woodruff & Werner, 1965; Kasl, 1975; Manheimer, Mellinger & Crossley, 1966; Morgan, 1967; Straits & Sechrest, 1963). Manheimer et al. (1966) found people not using seat belts to be so rigid in their approach to new events in the environment that they found it difficult to consider the belt's possible value. Belt users,

by comparison, tended to display a willingness to try new products and were open to entertaining innovative ideas (Morgan, 1967). In the James et al. study (1965), the impact of the government report on the health hazard of smoking was assessed 1 week subsequent to its release (which was also 5 weeks after respondents were identified as to their internal-external locus of control). Smokers who were internal in their orientation tended to be more convinced by the findings of the government report and were more likely to have quit smoking as a response than externally-directed smokers. Although the literature is limited, the fragmentary findings are promising. The relationship between externality-internality and situation-specific problem-solving has received more attention in the laboratory setting.

In the experimental setting, beliefs about the contingencies between behavior and outcomes are manipulated by presenting unsolvable problems. The influence of a previous history of ineffective behavior with these tasks has been demonstrated on subsequent problem-solving problems in a number of studies (Dweck & Repucci, 1973; Fosco & Geer, 1971; Hiroto & Seligmen, 1975). As the experience with nonsolution increased, the ability to solve problems once solution became possible decreased. Fosco and Geer (1971) exposed subjects to one of four problem-solving conditions, where none, three, six or nine of the 12 problems received were unsolvable. Failure to correctly complete a task was followed by a shock. The number of mistakes committed on a subsequent task increased as a function of the amount of previous failure on similar problems.

The performance decrement exhibited by individuals under uncontrollable and aversive conditions does not necessarily suggest cognitive or learning deficiencies. Phares (1968) has found, for example, that there were no differences in the number of trials internals and externals took to learn material useful in a subsequent problem-solving task. Externals may, in fact, exhibit greater recall, even for threatening material. Phares, Ritchie and Davis (1968) have shown that when given personality test results which contained both positive and negative feedback, externals remembered more of the detrimental information. Their findings also indicated that externals did not react differently to the material since they experienced no more anxiety than internals.

While externals do not demonstrate a diminished capacity to acquire and retain information, their focus and selection of material appears to differ from that of internals. In examining a number of settings in which there were specific problems to be resolved, Seeman (1967; 1963) found that internals were consistently and significantly more attentive to cues relevant to the successful negotiation of the situation. Thus, internally-oriented prisoners more quickly learned information pertinent to obtaining a parole; patients with an internal orientation focused on matters related to health; and, during a particularly hot international crisis, internal subjects were more politically knowledgeable than externals.

The more rapid learning curve for relevant cues exhibited by internals does not appear to reflect a facilitated cognitive process, but

instead, an earlier determination of what is appropriate and what is not. That is, when all subjects are presented the relevant items, externals do not take a greater number of trials for recall (Phares, 1968). Rather, internals make more attempts to actively seek and secure pertinent information (Davis & Phares, 1967).

In the process of searching for the relevant cues, internals seem to take account of and temper their activities according to the contingencies of the situation. The degree of control or skill that may be exerted, as well as the importance of the task itself, are evaluated. Thus, when Davis and Phares (1967) manipulated the perceived probability that a subject would successfully influence the attitudes of another, internals sought more information about the other when success was defined as a function of skill or the situation's parameters were ambiguous. When success was presented as a matter of mere chance, lesser amounts of information were sought and subjects did not differ. Clearly, a knowledge of instrumental cues was perceived by internals as irrelevant for a random outcome. When the importance of the task is high, such as one used to predict success in college, subjects experiencing a lower rate of prior noncontingent reinforcement exhibited not only enhanced problem-solving, but persisted longer at the tasks than externals. With a task of low priority or importance, however, subjects did not differ in ability nor perserverance (Roth & Kubal, 1975).

There is some evidence to suggest that should an external have the relevant cues at hand, he is less competent in their utilization.

A recognition of their appropriateness does not appear to be sufficient. Phares (1968), for example, has shown that internals used significantly more of the clearly relevant information, and used it better, to match descriptors with the stimulus person in a concept-formation task after a 7 day lag from initial learning. Neither a difference in retention at time of learning nor at the termination of the study was apparent between the two groups. Problem-solving is not, then, merely a matter of fine differentiation and discrimination of stimuli, but must be accompanied by some sense or motivation for correct application.

In summary, internals appear to make more attempts and exercise greater initiative to effectively control their environment. They evaluate and adequately process the cues relevant to the problem and assess the situation's potential for control. The cognitive abilities to differentiate the environment, discriminate among the masses of stimuli, comprehend the instrumental value of cues and utilize this information to resolve issues serve as some of the mechanisms by which control may be exercised when the individual engages the environment. As a consequence, internals tend to make more constructive responses, even in the face of stressors and frustrators (Butterfield, 1964) and, if necessary, are more willing to undertake instrumental behaviors to actively contront problem situations (Phares et al., 1968). More importantly, the ability to exercise control and implement remedial strategies seems to lessen the impact of stressful events (Lefcourt, 1976).

Locus of control is expected to be an important concept in understanding feelings of safety in elderly urban women. Elderly women who tend to view environmental events as less arbitrary and experience a higher expectation of control are hypothesized to have greater feelings of personal safety when negotiating diverse settings. By the same token, an elderly women's feelings of safety are jeopardized and reduced when her sense of personal control is diminished and beliefs about the unpredictability of the environment are increased. In addition to their direct effects, locus of control beliefs are predicted to have indirect effects on perceived safety. The indirect effects of locus of control beliefs are accomplished through the instrumental strategies used to deal with problem situations. Territoriality is thought to be one way in which locus of control beliefs are operationalized.

Territoriality

The application of the concept of territoriality to human behavior is fairly recent and augments an extensive literature involving lower organisms (e.g., Altman, 1975; Edney, 1976). The territorial phenomenon in animals has been shown to relate to a variety of social and organizational behaviors and processes, such as regulating the population, providing for defense, establishing dominance in herd or grouped animals, reducing conflict and maintaining adequate food resources. The functions which territorial behavior serve are accomplished by the dispersion of individuals in space (Edney, 1974). Efforts to further define the concept frequently center on the notions of laying claim to

an area for exclusive use by the individual or group, the establishment of boundaries, often through personalization and markers, and the defense of this area against all intruders.

The work in definition and theory for human territoriality borrows heavily from the formulations and research done with animals and, like subsequent empirical studies, is still limited and unsystematic. There are arguments that territoriality in humans serves functions paralleling those found in animals, such as dominance and peck order, the reduction and management of aggression, the regulation of population and resource distribution (Ardrey, 1966; Etkin, 1964; Lorenz, 1969). To these basic biological and social functions are added uniquely human psychological states, such as freedom (Proshansky, Ittelson & Rivlin, 1976), privacy (Altman, 1975) and identity (Ardrey, 1966).

The varying conceptualizations of the processes served by territoriality emphasize different behaviors one expects an individual to exhibit in relation to the physical environment claimed as his own (Edney, 1974). The behaviors expected are generally categorized as defense, marking and dominance.

Lorenz (1969) and Ardrey (1966) define defense as a set of behaviors associated with territorial encroachment by unwanted others. Some evidence of increased cross-glancing at a potential intruder (Patterson, Mullens & Romano, 1971) and faster response to the presence of a stranger at the door (Edney, 1972) may suggest a defensive posture of vigilance. However, direct confrontations between intruder and

"owner" are relatively rare. The process of defense, therefore, may be very subtle and difficult to readily observe.

The literature regarding dominance and territoriality is also somewhat unclear. The direction of the findings is dependent on the behaviors used to index dominance. When operationalized as degree of social contact, a negative relationship to territoriality is found (Esser, 1968; Esser, Chamberlain, Chapple & Kline, 1965). However, ratings of leadership or influence are positively associated with territorial behavior (Delong, 1970; Delong, 1973; Sundstrom & Altman, 1974). Further, because these studies involved psychiatric or task-oriented subjects, generalization is extremely hazardous. Like defense, the concept of dominance may be exhibited in a complex, but elusive manner.

Definitions incorporating the concepts of laying claim to and personalizing territory (Altman & Haythorn, 1967; Sommer, 1966; Stea, 1965; Sundstrom & Altman, 1974) have been more productive in generating supporting research. Altman (1975) summarized the findings to demonstrate that personalization through markers (a) defines the space as "owned territory," (b) cues others by their nature and number, and (c) regulates the behaviors and social interaction at that place. Thus, Edney (1972) found a greater number of marking signs (Private Property, etc.) on property whose owner has a longer occupancy history and intends to remain in the anticipated future. Personal (Sommer & Becker, 1969) or situationally appropriate markers (Hoppe, Greene & Kenny, 1972) effectively reserved an empty space, while impersonal markers tended to

delay its occupancy. In response to an area so marked, the individual attempted to maximize his distance and spent less time in contiguous locations (Becker, 1973).

The generally limited findings in human territoriality may be a function of the too literal application of analogies from animal research. Dominance, marking and defense may be major events in simple social organizations. Man, however, is credited with complex repertories of cognitive, affective and overt behaviors. Active defense, marking and dominance are perhaps relegated to rather specific instances of a more comprehensive process underlying territoriality. As such, the definitions previously discussed are restrictive and centered on rare or minor events.

Altman (1970) proposes a less precise and more global definition of human territoriality as

> encompassing temporarily durable preventive and reactive behaviors including perceptions, use and defense of places, people, objects, and ideas by means of verbal, self-marker, and environmental prop behaviors in response to properties of the environment, and is geared to satisfying certain primary and secondary motivational states of individual and groups (p.8).

A broad and relatively unspecified number of behaviors may be subsumed in this conceptualization. Unlike other definitions, however, the behaviors per se appear to be secondary to its need- or motive-orientation (Edney, 1974). Thus, although active defense, dominance and marking may, to some extent, characterize territorial activity, the preservation of property for itself need not be their primary purpose.

Control is a little explored theme apparent in much of the theoretical work in human territoriality (cf. Cavan, 1963; Edney, 1975; Edney, 1976; Lyman & Scott, 1967; Roos, 1968; Sommer, 1966). Exclusive claim and use of space is viewed as serving two distinct, albeit related, functions by providing a sense of control and a means of control. Edney (1975; 1976) and Cavan (1963) suggest that there is a need for a reliable and familiar place in which to exercise everyday behaviors away from the view of others. The stability of one's home, therefore, contributes to a feeling of assurance that, in at least one place, one will not experience random and unauthorized change. Order and a sense of control are maintained though the individual must often leave his property.

Territoriality may also be viewed as a mechanism by which one secures a measure of control. The possession and identification of property as one's own allows the owner to exclude unwanted others. He might gain a relative freedom of behavior or free himself of many of the role expectations and regulations governing social or public activities. From this perspective, dominance is only one aspect of the instrumental use of claimed space (Edney, 1975). An individual on his home territory exhibits greater resistance to the control attempts of others than he does in locations he does not claim (Edney, 1975). To some extent, then, the individual is allowed to manage the activities and experiences he encounters.

Conceptualizing territoriality as providing a means for control and a sense of control has important implications for understanding the relationship of territorial behavior and feelings of safety found by Patterson (1977; 1978). That is, an individual who experiences orderliness and a means by which manageability may be obtained also has an expectation that the environment is open to personal manipulation, and vice versa. The issues of beliefs in predictability and control, along with their expression in territoriality, may be salient whenever the perception and utilization of environmental cues is necessary. An environment with criminal elements is one such situation. Thus, elderly women who tend to view environmental events as less arbitrary and experience a higher expectation of control are hypothesized to express these beliefs in greater feelings of territoriality with respect to their residence and neighborhood. A lessened sense of territoriality is assumed to result when either the environment is viewed as unpredictable and difficult or the individual has fewer expectations of personal control, or both. By the same token, feelings of safety are enhanced when one's sense of territoriality is increased and jeopardized when territoriality is decreased. One's locus of control, then, is predicted to have indirect effects on perceived safety through mediation by territoriality.

A Proposed Model of Perceived Safety

A weak but causal relationship is hypothesized to exist between a respondent's perceptions about the orderliness or difficulty of the

environment and sense of personal control, perceived territoriality and her feelings of safety. Elderly women who tend to view environmental events as less arbitrary and experience a higher expectation of control are thought to express these beliefs in greater feelings of territoriality with respect to their residence and neighborhood. These particular orientations to the environment and its management, including their subsequent operationalization as territoriality, are expected to induce greater feelings of personal safety in various settings. A diminished sense of territoriality is assumed to result when either the environment is viewed as more unpredictable and difficult or the individual has fewer expectations of personal control, or both. Expectations of personal control are thought to have relatively more influence on the extent of one's territorial posture than beliefs about chance. By the same token, feelings of safety are jeopardized and reduced when one's sense of territoriality and personal control are diminished and beliefs about the arbitrariness of the environment increased. One's locus of control, then, is predicted to have both direct effects on perceived safety and indirect effects through mediation by territoriality.

METHOD

Subjects

The respondents were 81 women volunteers aged 60 or more from three sites in the Rogers Park community, Chicago, Illinois. The sample included

(a) 24 elderly women with one or more years occupancy in Chicago Housing Authority (CHA) units, which are low-cost, age-congregated high-rise housing for senior citizens meeting stringent economic criteria;

(b) 37 elderly women in the lakefront neighborhoods of East Rogers Park, which is characterized by multiple-dwellings, high population density, heterogeneous residents and traffic congestion; and

(c) 20 women currently living in the West Rogers Park area, characterized by single-family units, lower density and less traffic congestion.

All respondents were English-speaking and of sufficient health to permit a telephone interview of 30 to 60 minutes duration. A complete demographic description of the sample has been included in Appendix B.

Measures

A survey instrument was developed and included the following subsets of items.

1. Eight items (numbered 6 to 13) were intended to measure an individual's locus of control. They were constructed by Rotter (1966)

and identified as forming part of a unidimensional subscale termed Personal Control by Gurin, Gurin, Lao and Beattie (1969). To adapt the items to the needs of this project, their response format was altered.

Originally, two items formed a set from which respondents chose the one that best represented their attitude. Their pairing was not arbitrary. One of the two endorsed a belief in the efficacy of personal control. The other expressed a belief in the importance of chance in one's life. For example, "When I make plans, I am almost certain that I can make them work" was matched with "It is not always wise to plan too far ahead because many things turn out to be a matter of good or bad fortune anyway."

In this study, the items of a set were dealt with individually using a 5-point Likert-like response format. The respondents' task was to indicate the extent to which they agreed with <u>each</u> statement.

2. Six items (numbered 14 to 19) were intended to measure respondents' feelings of territoriality. They were developed by Patterson (1977) as part of his investigation of territorial marking behavior and fear of crime among the elderly.

The domain of environments covered in the items ranged from feelings about one's home to identification with the neighborhood. Examples of items used to assess respondents' expressed territoriality in a number of settings included "I have tried to arrange my home so that other people would know it belongs to me," "I feel responsible for what occurs in building areas near my home (the hallways or yard)" and "I consider my neighborhood as merely a place to live and do not feel a

feel a part of it".

A 5-point Likert-like response format was used. Subjects were asked to indicate the extent to which they agree with each statement.

3. Seven items (numbered 30 and 32 to 37) were used to measure two components of respondents' fear of crime. The first involved an assessment of the likelihood of being robbed in the next couple of years. The 5-point Likert-like response format ranged from Very Unlikely to Very Likely. The response to this item was intended to represent the risk experienced by the elderly women.

4. The affective aspect of fear was measured with six items about the respondents' feelings of personal safety. The personal safety items dealt with three settings under two time frames and used a 5-point Likert-like response format ranging from Very Unsafe to Very Safe. The three settings were the home, other building areas (hallways, stairwells or the yard) and the neighborhood. Feelings of safety were evaluated separately for day and night-time in each setting.

5. Four items (numbered 20 to 22) examined respondents' direct and indirect experiences with criminal victimization in the last couple of years. Have you been a victim? Do you personally know someone who has been robbed? Or someone whose home has been burglarized? How often do you watch television shows involving police and crime?

6. Fifteen demographic items included age, race, area of residence, education, marital status, years in present home, years in the community, housing status, number of people in the home, access to private transportation, activity level and health.

Because many of these items have been extensively and successfully employed in previous research efforts, no pretest was conducted. No problems were encountered in their administration to elderly women. A copy of the questionnaire is included in Appendix A.

Procedure

Key people associated with various agencies and organizations operating for senior citizens were called to secure cooperation and access to potentially eligible respondents. The elderly women were approached individually and asked to participate in the survey. Since the request was usually made during the course of organization functions, names and telephone numbers were taken. The data were collected by telephone interview during the late winter and early spring months of 1979. Adherence to the requirements of informed-consent was made.

RESULTS

Subject Characteristics

The respondents were caucasian and ranged in age from 60 to 91, with a mean age of 73 years (SD 7.4 years). Only 16 percent were still married and, as a consequence, more than three-quarters maintained a home for themselves alone. The women tended to be long-time residents of Rogers Park, with a mean of 23.25 years in the community (range 3 to 82 years, SD 15.5 years). They also maintained stable households with a mean of 12.6 years in the same home (range 1 to 50 years, SD 9.79 years). More than 80 percent were renters. Their median income ranged from $6000 to $7999. These funds were almost solely represented by social security, pension, interest from savings, dividends on investments and other unearned (non-wage) sources. Over 60 percent had attained at least a high school education. All but five were able to carry out most day-to-day tasks independently with approximately 80 percent frequently running errands in the community or visiting away from the home.

Respondents were drawn from heterogeneous settings and varied considerably on a number of characteristics. The women occupying CHA apartment units were older and less able to complete some ordinary tasks without help. Their eligibility for public housing was reflected in lower income; fewer years were spent in their present home since the building has been open for tenancy only 9 years. In general, except

for factors associated with their better financial status and health, the women of East Rogers Park resembled their CHA counterparts. By contrast, the women living in West Rogers Park experienced a different lifestyle based, in part, on their younger years. They were more likely to be married, own their homes, have readier access to an automobile and continued to work, although usually on a part-time basis. Most of the differences found were attributable to the unique characteristics of the West Rogers Park women.

A complete description of the sample may be found in Appendix B.

Measurement Reliability

The evaluation of item reliability was undertaken to determine the appropriateness and guide the development of internally consistent scales. Factor analytic procedures and calculations of coefficient alpha were used to assess survey items intended to measure locus of control, territoriality, victimization experiences and feelings of safety. These analyses permitted data reduction by combining items into scales and indices in a manner which is empirically supported.

Factor analysis describes a set of parametric correlational procedures. The technique identifies behaviors or attitudes which cluster together statistically along some underlying dimension. For each subset, the main diagonal of its correlation matrix was replaced with the maximum off-diagonal correlations. An iteration process was employed to improve communality estimates. Transformation was made to either a varimax factor matrix, an orthogonal method, or an oblique

factor matrix, where the demands of orthogonality between factors are relaxed (Nie, Hull, Jenkins, Steinbrenner & Bent, 1975). The patterns of relationships found reflect a series of behaviors which are performed, or attitude statements endorsed, to a similar extent by the same people. Generally, items with loadings of .30 or better were considered as defining a factor and identifying items for viable scales.

Cronbach's coefficient alpha (1951) was calculated to determine the extent items within a set interrelated. This reliability statistic specifies the proportion of variance attributable to consistent individual differences in practicing a behavior or endorsing an attitude statement. Alpha values of .50 or better were considered of sufficient magnitude to warrant adding together standardized item responses as a scale or index.

The five scales developed as a result of these analyses included Chance, Control, Territoriality, Vicarious Victimization and Feelings of Safety. (A complete description of these analyses may be found in Appendix C.)

Locus of control. Eight Likert-like items were included in the survey instrument to assess respondent's locus of control. Two factors were identified and retained. The terminal solution was accomplished with oblique rotation. The first factor seemed to represent beliefs individuals hold about personal control over life circumstances. The second factor seemed to deal with the role that chance or luck play in the respondent's life. They were not entirely independent, correlating

moderately at -.53. Items loading on each factor formed scales with alpha coefficients of .76 and .69, respectively, indicating moderately high reliability. These scales were termed Control and Chance.

Total scores for the Chance and Control scales could range from 4 to 20. The higher Chance value indicated an external orientation; the higher Control score an internal orientation. The Chance scale scores obtained in the sample of women interviewed ranged from 4 to 20, with a mean value of 13.31 and a standard deviation of 3.88. The frequency distribution was skewed slightly in favor of the more external response anchor. The obtained Control scores ranged from 5 to 20, with a mean value of 13.65 and a standard deviation of 3.99. The frequency distribution was skewed slightly toward the more internal response anchor. No differences were found between the CHA, East Rogers Park and West Rogers Park women in the extent to which they report exercising control in their lives ($F(2,78)=.78$, n.s.) nor in the influence of luck and fate ($F(2,78)=.02$, n.s.).

Territoriality. The questionnaire included six Likert-like items to measure respondent's feelings of territoriality. One factor emerged from initial factoring. The alpha coefficient for all six items taken together was moderately high, at .79. However, inspection of the factor loadings suggested that two items were correlated less well than the others. Their content also differed noticeably in their scope by dealing with areas away from the home. To better reflect item interrelationships, the contribution of an item to the total scale score was corrected by weighting standardized item scores with the item factor

loadings. Thus, an item influenced the total score to the extent the factor acted as its determinant. The scale is referred to as Territoriality.

Using the weighted correction of individual territoriality items, the range of possible scale scores was -12.46 to 2.86. The higher scores reflected high territoriality. The Territoriality scores obtained in the sample ranged from -12 to 2, with a mean of -.64 and a standard deviation of 3.08. The frequency distribution was noticeably skewed toward high feelings of territoriality. The median value of 0.024 was indicative of the concentration of cases at one end of the continuum. No differences were found between the CHA, East Rogers Park and West Rogers Park women ($F(2,78)=1.46$, n.s.).

Personal victimization. Approximately one-third (32.1 percent) of the respondents reported having been victimized within the last couple of years. Most of the episodes involved some kind of personal confrontation between the woman and the offender. Twenty-one purse snatches and two muggings (assault with purse snatch) were cited. The incidence of reported property crime was slightly less than half that of street crime. Eleven women experienced burglary of either the home or other property (garage or basement storage lockers in apartment buildings).

Of the 26 women victimized, six suffered multiple episodes in the last 2 years. Five women whose purses were taken also sustained a burglary. Another was mugged, burglarized and lost her purse to a group of youths during one 6-month period.

The rate of victimization was examined for women residing in each Rogers Park setting. The number was lowest among CHA respondents with 21 percent, followed by 30 percent of the West Rogers Park respondents and 41 percent of the East Rogers Park respondents. However, while this latter group appears to have borne an inordinate share of criminal damage, they were not statistically more vulnerable than the CHA or East Rogers Park women ($\chi^2(2)=2.65$, n.s.).

Vicarious victimization experiences. Three items were related to the respondent's indirect or vicarious exposure to crime and victims. They included personal acquaintance with a robbery or assault victim, a burglary victim and television shows involving police or crime. One factor was identified from the initial analysis. The items combined had an alpha coefficient of .56, marginally meeting the criterion for scale development, and was termed Vicarious Victimization.

Exposure to the criminal experiences of others could range from 3 to 10, with higher scores indicating greater vicarious victimization. The obtained scale scores ranged from 3 to 10 with a mean of 6.75 and a standard deviation of 2.12. Approximately 72 percent of the women knew a victim of street crime. Of the 58 incidents cited, 53 had occurred in the respondents' neighborhoods. Although fewer were familiar with burglary victims, the frequency was still high at 57 percent. All but three of the 46 reported property crimes happened in the respondents' neighborhoods. The number of women seeking out television programs involving crime at least some of the time was smaller still. Most of the women (58 percent) rarely, if ever, tuned into that kind of

programming. In general, the CHA women tended to have the least exposure to criminal episodes presented in the media or relayed by others (mean of 5.8), while the women in East Rogers Park had the most (mean of 7.3). The mean for the respondents in West Rogers Park was 6.9. The community variations were significant ($F(2,78)=4.02$, $p < .02$) and attributable to differences in CHA and East Rogers Park women. The West Rogers Park respondents did not differ significantly from either CHA or East Rogers Park respondents.

Risk of street crime. Respondents were asked to estimate the likelihood of being robbed, assaulted or having a purse taken in the neighborhood in the next couple of years. Over 71 percent concluded that at least an attempt by someone was possible. Almost 41 percent evaluated the situation as somewhat likely. Another 30 percent felt that their chance of victimization was very likely. The three community groups did not differ in their risk assessment ($F(2,78)=1.2$, n.s.).

Feelings of safety. Six items used to assess respondent's feelings of safety in various settings clustered on a single factor. They formed a Safety scale with an alpha coefficient of .79, indicating moderately high reliability.

Values on the Safety scale could range from 6 to 30, with the higher scores reflecting greater feelings of being safe in a number of settings. Scores on the Safety scale ranged from 7 to 28 for the women tested. The mean for the sample was 21.2, with a standard deviation of 4.6. Generally, the women tended to feel somewhat safe to very safe in their homes at any time and other building areas during the day. Feeling safe in building areas at night and out in the neighborhood

during the daytime was somewhat more difficult. Overall, though, they felt more safe than unsafe in these latter sites. Few, if any, of the women ever felt anything but very unsafe in the neighborhood alone at night.

Respondents were compared for their feelings of safety by area of residence. Across all settings and under both time conditions, no differences were found ($F(2,78)=2.0$, n.s.). An analysis of individual items, however, did reveal significant variation in specific settings. The differences centered on feelings of safety in the home at any time and in other building areas during the evening. Neither the CHA nor the East Rogers Park women varied significantly from West Rogers Park respondents in feelings of safety in the home. The CHA and East Rogers Park women did differ from each other, though. The CHA women tended to feel safer in their homes both during the daytime ($F(2,78)=4.42$, $p < .02$) and at night time ($F(2,78)=6.35$, $p < .003$).

There was also a significant finding for feelings of safety in building areas at night ($F(2,78)=2.98$, $p < .06$). Although the CHA women consistently felt safer in their housing complex than either of the other groups, the Newman-Keuls analysis failed to identify any pairs of groups that differed in regard to building locales. An in-depth examination of these differences utilizing Guttman procedures is presented in Appendix D.

These seven scales and measures were the primary data components used in later analyses to test the proposed model of perceived safety in elderly women.

The Model Examined

Bi-variate relationships. A series of zero-order correlations were computed between locus of control attitudes, territoriality and feelings of safety. As expected, territoriality was negatively related with beliefs about the influence of luck ($r(79)=-.50$, $p < .001$) and positively with perceptions that the environment is open to personal control ($r(79)=.65$, $p < .001$). Women who held that the environment was arbitrary and not amenable to regulation were less likely to adopt a territorial stance with regard to their homes and community, and vice versa.

The hypothesized relationships between locus of control beliefs, territoriality and feelings of safety were also supported. Women who felt safer in a variety of settings tended to discount the role of chance ($r(79)=-.54$, $p < .001$) and endorsed the expectation that they could exercise control over events ($r(79)=.49$, $p < .001$). Further, and consistent with Patterson's (1977, 1978) findings, those who expressed a more vigorous territoriality tended to be less uneasy or worried for their safety ($r(79)=.61$, $p < .001$).

Multiple regression and path analysis. The proposed model of felt safety in elderly women assumes that the outlined relationships are causal. For example, adopting a territorial posture is thought to be an effect of one's expectancies and experiences with personal control and the orderliness perceived in the environment. While the non-experimental methodology used in this study does not allow for a rigorous test of causality, the linear relationships among the variables may

be decomposed into direct, indirect, joint or spurious effects and given causal interpretation through path analysis. Multiple regression procedures are employed to test the linear relationships in the data. Standardized regression coefficients are designated as the path coefficients. A set of causal assumptions is imposed on the relationships found among the variables and their implications examined (Nie et al., 1975).

A schematic representation of the Safety model (termed a path diagram) is presented in Figure 1. The use of directional lines links the "causal" variable(s) with its "effect" variable(s). The path coefficients (standardized regression coefficients) resulting from the regression analyses are shown for the associated variables in the model.

The expected relationships may be stated simply. Chance was expected to be negatively related to Territoriality (Path 13) and to Feelings of Safety (Path 14). Conversely, positive relationships were predicted between Control and Territoriality (Path 23), Control and Feelings of Safety (Path 24) and Territoriality and Feelings of Safety (Path 34).

Basically, the standardized regression coefficients (Beta values) describing each path were determined by regressing each successive "effect" variable on all of its higher-order predictor variables ("causes"). The resulting coefficients represented the magnitude of the relationship existing between each predictor variable and its "effect" when the influence of other factors is controlled. The outcomes of the regression procedures are presented in Table 1.

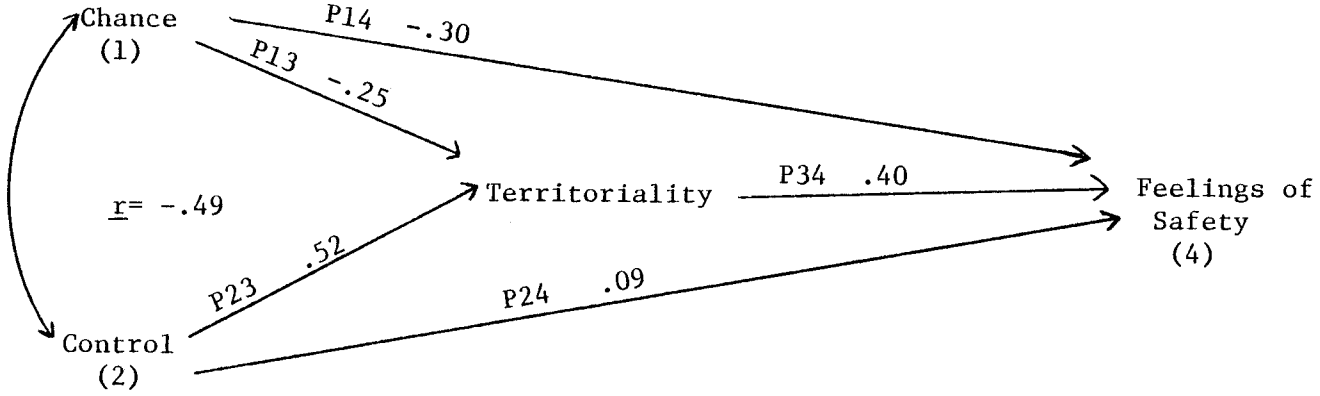

Figure 1. Proposed model of safety, the relationship of locus of control, perceived territoriality and feelings of safety.

Table 1

Safety Model:
Results of Regression Analyses

	Standardized Beta	F	p
Territoriality			
1. Chance	-0.249	6.886	<.05
2. Control	0.524	30.547	<.000
Multiple R			.68
Total Variance in Territoriality Accounted for			46%
Feelings of Safety			
1. Chance	-0.295	8.5	<.005
2. Control	0.087	0.579	n.s.
3. Territoriality	0.402	12.075	<.001
Multiple R			.67
Total Variance in Safety Accounted for			45%

As indicated in Figure 1, a relationship was apparent between respondents' beliefs about the predictability of the environment and their sense of personal control. Those who experienced and held higher expectations of control also tended to view the environment as less arbitrary ($r(79)=-.49$, $p<.001$). Within the proposed model, this relationship remained unanalyzed. No assumptions about causal influence involving these two variables were articulated nor explored.

Their independent effects on one's sense of territoriality were represented by beta values of -.25 for Chance (P13) and .52 (P23) for Control. As predicted in the model,

(a) the relationship between Chance and Territoriality was negative, while that for Control and Territoriality was positive;

(b) the magnitude of each relationship was significant; and

(c) Control appeared to be the stronger predictor.

Approximately 46 percent of the variance in the territorial disposition was accounted for by the joint operation of the Chance and Control belief systems. The observed linear association was highly significant ($F(2,78)=33.81$, $p<.001$). Respondents who experienced higher expectations of personal control and viewed the world as more orderly and predictable also had a stronger territorial disposition.

The overall observed linear association between Chance, Control, Territoriality and Feelings of Safety was also highly significant ($F(3,77)=20.73$, $p<.001$). Approximately 45 percent of the variance in

felt safety was explained by the joint operation of Chance and Control orientations and Territorial attitudes. Their independent influence was represented by beta values of -.30 for Chance (P14), .09 for Control (P24) and .40 for Territoriality (P34). As predicted in the model, each relationship was in the expected direction. However, an evaluation of the path coefficients indicated that only Chance and Territoriality contributed significantly to the prediction of Feelings of Safety. The Control path (P24) was null. Control did not have an effect independent of its mediation (or "interpretation") by Territoriality. Respondents who perceived the environment as predictable and manageable and who expressed a heightened sense of Territoriality also tended to experience greater feelings of safety across various settings.

The Model Elaborated

The continued potency of the Chance variable suggested that the model might be profitably extended with a view to specifying still other mediating processes. The Chance belief systems focused on perceptions of the difficulty and predictability of the environment. In post-hoc reasoning, these general perceptions were expected to influence situation-specific evaluations, such as the likelihood of being robbed or assaulted. They were considered as much a source of information as one's previous experience with victimization or knowledge of or exposure to other's victimization. In this conceptualization, Chance operated on Feelings of Safety as "interpreted" into an assessment of the probability of being robbed. The elaborated model proposed incorporating

these more cognitive components to better explain the association of Chance and Feelings of Safety.

The predicted relationships may be stated simply. The perception that one is likely to become a robbery victim is expected to be a function of having been a crime victim in the past, knowing other victims and believing that the environment is difficult and arbitrary. The assessment of greater risk, in turn, produces diminished feelings of safety.

Bi-variate relationships. A series of additional zero-order correlations were computed between victimization experiences, the Chance beliefs, risk assessment and feelings of safety. The interrelationships among all elements of the elaborated model are shown in Table 2. As expected, judgments about the risk of street crime were associated with respondents' history of personal victimization ($r(79)=.29$, $p<.01$), the extent of their vicarious exposure to victimization ($r(79)=.44$, $p<.001$) and their beliefs about the influence of chance ($r(79)=.18$, $p<.05$). Of these, only assessments of risk were significantly related to felt safety ($r(79)=-.42$, $p<.001$). Women who held that the environment is unpredictable, had recently been a victim of crime and knew of the victimization experiences of others tended to perceive their risk of street crime as greater. The higher their perceived risk, the more unsafe they felt in various settings. Neither expectations about control nor a territorial disposition were associated with victimization experiences and assessments of risk. Chance, personal victimization and vicarious victimization were not interrelated.

Table 2

Correlations Among Attitudinal and Cognitive Elements of the Model of Felt Safety

	Control	Chance	Territoriality	Risk of Street Crime	Personal Victimization	Vicarious Victimization
Control						
Chance	-.49***					
Territoriality	.65***	-.50***				
Risk of Street Crime	-.09	.18*	-.15			
Personal Victimization	.09	-.10	.12	.29***		
Vicarious Victimization	.04	-.11	.09	.44***	.16	
Feelings of Safety	.49***	-.54***	.61***	-.42***	-.08	-.12

*p < .05

**p < .01

***p < .001

N=81

Multiple regressions and path analysis. A schematic representation of the Attitudinal-Cognitive model is presented in Figure 2. The paths have been labelled with the results of their regression analyses and are summarized more fully in Table 3.

The addition of a cognitive component did not disturb or alter the relationships among the attitudinal elements of the basic model. Neither the magnitude nor the structure of the paths linking Control belief systems to territoriality and territoriality to feelings of safety changed.

The Chance, Personal Victimization and Vicarious Victimization variables were shown as having no association to each other except as they independently affected Risk of Street Crime. Their minor relationships to one another were considered to be spurious as determined in the preliminary correlational analysis.

The overall linear association between these variables and Risk of Street Crime was highly significant ($F(3,77)=11.45$, $p<.001$), with their joint operation accounting for approximately 31 percent of the variance in the probability assessment of future victimization. Their independent contributions were represented in a beta value of .25 for previous victimization experiences, .43 for vicarious exposure to the victimization of others and .25 for beliefs maintained about the arbitrariness of the environment. These path coefficients were significant and in the directions predicted. Respondents who perceived a greater likelihood of becoming a victim of some personal crime such as robbery also tended to have already and recently suffered a victimization,

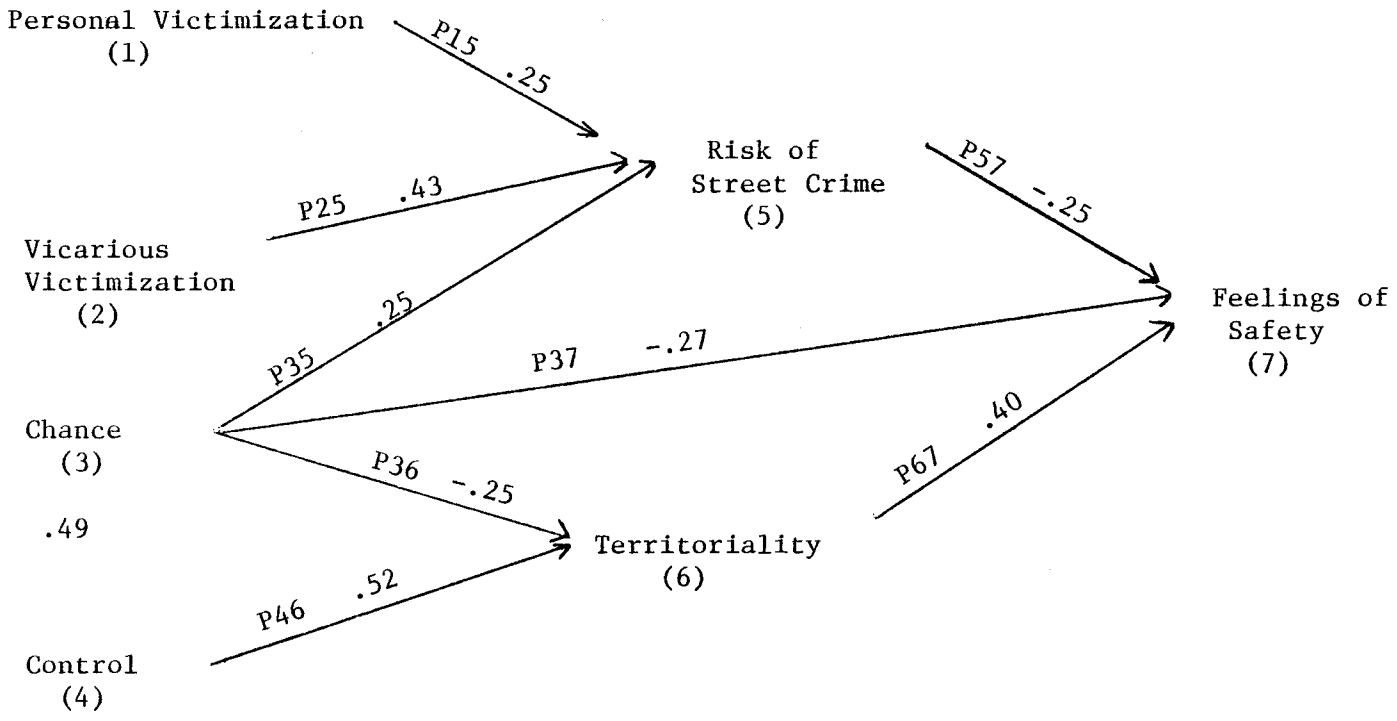

Figure 2. The attitudinal-cognitive model of felt safety.

Table 3

Elaborated Safety Model:
Results of Regression Analyses

Decomposition of the Cognitive Components

	Beta	F	p	
Risk of Robbery				
1. Personal Victimization	.253	6.92	<.01	
2. Vicarious Victimization	.428	19.68	<.001	
3. Chance	-.254	7.06	<.01	
Multiple R				.56
Total Variance in Risk of Robbery Accounted for				.31
Feelings of Safety				
1. Risk of Robbery	-.252	7.007	<.01	
2. Chance	-.269	7.835	<.01	
3. Territoriality	.395	13.151	<.001	
4. Control	.086	.651	n.s.	
5. Vicarious Victimization	-.066	.546	n.s.	
6. Personal Victimization	-.077	.847	n.s.	
Multiple R				.73
Total Variance in Feelings of Safety Accounted for				.55

knew more people who have been victims and viewed the world as less orderly or predictable. The source of information which seemed to be the primary determinant in evaluating risk was the indirect exposure to crime gained through friends and the media.

The feelings of safety experienced by a respondent seemed to be, in large measure, the direct function of her risk evaluation, beliefs about the organization of the environment and a sense of territoriality about her home and community. The linear association found accounted for 55 percent of the variance in felt safety and was highly significant ($F(6,74)=14.91$, $p < .001$). In addition, each of the path coefficients for Risk, Chance and Territoriality were significant. Personal Victimization, Vicarious Victimization and Control influenced Felt Safety only as they were interpreted by Territoriality or the risk assessment. Moreover, the incorporation of Risk in the model did little to diminish or explain the continued strong relationship between Chance and Felt Safety.

The results of these analyses suggested that the extended model consisted of three predominantly independent components. Territoriality seemed to represent a disposition of control the individual imposed over her setting and was the strongest determinant of her felt safety. Risk and Chance both reflected cognitive orientations, with beliefs and expectations about the contingencies of the general environment and the specific crime setting. By incorporating situation-specific factors (the risk assessment), the prediction of a respondent's felt safety was significantly improved.

DISCUSSION

A weak but causal relationship was hypothesized to exist between an elderly woman's beliefs about the orderliness or difficulty of the environment, expectations of personal control, sense of territoriality and her feelings of safety in various settings. Perceived territoriality was thought to be a function of the individual's attitudes about the arbitrariness of the environment and its potential for control. These locus of control beliefs and their expression as territoriality were assumed to contribute to the women's feelings of safety in response to the threat of crime. The present study was undertaken, then, to

(a) explore the means or mechanisms through which one's control beliefs and perceptions about the predictability of the environment are operationalized,

(b) expand the concept of human territoriality to incorporate some of the psychological processes and purposes which are hypothesized to be involved, and

(c) promote a more complete understanding of the dynamics underlying feelings of safety or worry among elderly urban women.

In an attempt to integrate the three literatures and clarify the relationships among these variables, a model was proposed and examined using regression procedures and path analysis. As expected, elderly women who tended to view environmental events as orderly and experienced

a higher expectation of control tended to express these beliefs in greater feelings of territoriality with respect to their homes and neighborhoods. A diminished sense of territoriality resulted when either the environment was viewed as unpredictable and difficult or the individual had fewer expectations of personal control, or both. In general, expectations of personal control seemed to have relatively more influence on the extent of one's territorial sense, although both locus of control components contributed significantly. Feelings of safety, in turn, were enhanced when the women assumed a territorial orientation toward the setting and the environment in general was perceived more orderly and predictable. Although beliefs in the efficacy of personal control were found to have no direct relationship to the individual's feelings of safety, the basic model tended to be supported.

In subsequent analyses, a second and smaller component was apparent. The post-hoc elaboration of the model involved the addition of a cognitive assessment about one's personal risk in the environment. Estimates of the likelihood of being a street crime victim appeared to be a function of one's prior experience as a crime victim, exposure to the victimization experiences of others (actual or as presented in the media) and the beliefs one holds about the arbitrariness of the environment. In general, the more unpredictable the world seemed, the greater and nearer the number of other known victims and a fairly recent history of personal victimization, the higher the perceived risk. The

more vulnerable the woman felt, the less safe she felt in diverse settings.

Locus of Control

Previous research utilizing the locus of control concept have rarely distinguished between an individual's beliefs about the contingencies operating in the environment and beliefs about one's ability to exercise control. A review of the model argues for differentiating these belief systems. Evaluating the probability of victimization seems to have provided a way of organizing and giving meaning to beliefs about the way the world is and the past events of the woman's life. The home and surrounding areas appear primarily to provide a context or concrete setting in which to organize and express one's need to control elements of the environment. Despite their apparent significant relationship to each other, the belief constellations seem to be manifested through somewhat different mechanisms.

Within the small set of variables examined, the way each belief system served to explain felt safety also differed markedly. Expectations of control had no significant influence on one's feelings of safety except as they were interpreted in another process (e.g., territoriality). Perceptions about the orderliness of the environment had both a direct and an indirect impact on felt safety. Later elements of the model (e.g., territoriality, risk assessment and felt safety) were evaluated or responded to in light of this belief consideration. Exercising control through territoriality, assessing less or little

probability of being victimized and experiencing greater feelings of safety appeared to be enhanced when the environment was viewed as sympathetic.

Territoriality

The developing literature in human territoriality has directed little rigorous or systematic attention to the concepts of territorial attitudes and perceptions. In Patterson's (1977) seminal work, visible property markers (e.g., "Keep Off" signs) were used to document territoriality and demonstrate its relationships to feelings of safety among the elderly. Although marking behaviors were also found to be significantly associated with certain attitudes, the relationship of these territorial attitudes to feelings of safety was not pursued. The issue remained unexplored in his later research (1978) on the impact of density, where territorial attitudes and feelings of safey were assessed as quality-of-life indicators. However, a close review of the correlation data presented in the study (Patterson, Note 3) indicated that territorial attitudes were significantly and negatively related to fear of violence ($r=-.29$, $p < .01$) and to a fear of the neighborhood ($r=-.34$, $p < .01$). Despite differences in sample composition (female elderly only) and measurement of fear and territoriality (weighted attitude items), the direction and magnitude of the relationship found in the present study supported Patterson's preliminary analyses. The concept of territorial attitudes appears to have considerable promise in expanding our knowledge of human territoriality, as well as utility for

examining feelings of safety among the elderly.

Patterson (1977) viewed property marking efforts as the behavioral aspect or manifestation of territorial attitudes. He hypothesized that the environment created by these activities (and perceived from a proprietary perspective) promoted feelings of safety. Because locus of control beliefs are thought to influence problem-solving capabilities and the ability to withstand stressors, the finding that territoriality acts as their organizing mechanism supported its conceptualization as an instrumental approach to the environment. At the same time, the results of the present study suggest how locus of control belief systems are operationalized in confronting real life concerns.

Feelings of Safety Among Elderly Women

The model tested in the present study indicated that the safety experienced by elderly urban women is a multi-component process, including both crime- and noncrime-related factors.

Of the two components identified, the more powerful involved an instrumental response to the environment. The adoption of a territorial posture in relation to the home and community was governed by the woman's expectation of control in the context of an environment viewed as sympathetic. Feelings of safety were, in turn, a function of the degree to which territorial attitudes were assumed and the contingencies operating in the environment were perceived as orderly. The issue of

crime never directly entered into this process. Rather, considerable variance in feeling unsafe seemed to be rooted in the women's beliefs that she was an ineffective agent and that the environment held undifferentiated dangers.

A significant, but relatively small portion of the variance in feelings of safety was attributable to crime-specific elements, i.e., the appraisal of risk. This second component involved the integration of the individual's history of victimization, her knowledge of the victimization experiences of others and her beliefs about the unpredictability and hence, dangers of the environment. The assessment of and reaction to a crime threat was based, in part, on a reality determined by available information.

While an elderly woman's feelings of being unsafe do not seem to represent unfocused anxieties, crime issues are not the predominant factors involved. The findings suggest that even if crime were perfectly controlled, some women would always feel unsafe and believe themselves to be ineffectual in a hostile world.

Future Directions in Research

The present research was exploratory and not intended to provide a definitive statement about the feelings of safety in elderly urban women. Since the conventional explanations have not been fruitful in accounting for the elderly's extraordinary anxieties about crime, an examination of the dynamics underlying feelings of safety seemed to be

warranted. This research effort was planned as a necessary first step in the investigation of personal differences associated with the security elderly women experience in the home and community settings.

The findings of the present study suggest that there may be an important relationship between a woman's beliefs about the predictability of the environment, her expectations of control and feelings of safety, which is mediated by her territorial attitudes. While limits in the sampling methodology are evident, it served the needs for hypothesis generation. However, rigorous follow-up research is clearly indicated to validate the findings in a representative sample of elderly urban women.

The present study also provided support for the conceptualization of territoriality as an instrumental response to the environment. Further research is necessary to determine if the relationship between locus of control beliefs and territoriality is maintained where behaviors rather than attitudes are used to represent territoriality. And finally, while the link between territoriality and feelings of safety was again demonstrated, the mechanism by which territoriality impacts on the security of elderly women remains unclear.

Policy Implications

The findings of the present study suggest that intervention efforts which focus primarily or exclusively on crime issues may

have only a small impact on the security an elderly woman experiences in her home and community. This is not to argue that crime is an inconsequential problem. Rather, an elderly woman's feelings of being unsafe seem to be governed, in large measure, by the perception she has of herself as incapable and without control and her view that events in the environment are unmanageable. Crime may be one of several conditions (perhaps an important one) which exacerbates her insecurities. Thus, interventions which fail to take account of the dynamics underlying feelings of safety would seem to have limited effectiveness.

The kinds of interventions which seem to be indicated are those facilitating the elderly woman's negotiation of the environment. For example, the ready availability of a private transportation source may insulate the woman from potentially disturbing or disruptive events while allowing her to go about her business throughout the community. In effect, she may attain a certain measure of control by neutralizing the impact of the environment. A more radical approach involves actually restructuring features of the environment to create a sympathetic setting. Age-segregated housing, built to alleviate the elderly's financial burden, may have a more far-reaching consequence. By offering a secured premise and the presence of similar others, the perception of order and predictability are encouraged. A wide array of services are brought to the tenants, easing their ability to function effectively in

meeting day-to-day needs. These strategies would seem to support the attitudes and perceptions found to influence feelings of safety, and as such, warrant careful research and policy attention.

The issue of crime should not, of course, be ignored. While its role appears to be small in explaining feelings of safety, crime continually emerges as a major concern in public opinion polls. The findings of the present study indicate that the crime information available to the individual has a significant impact on her appraisal of risk. However, the information tends to be parochial in nature, limited somewhat to personal horror stories. Appropriate interventions may be those which allow the woman to gain certain balanced perspectives on the experiences she and her friends have.

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APPENDIX A

APPENDIX A

SURVEY OF ROGERS PARK SENIOR CITIZENS

First, we would like a little background information about you.

1. How many years have you lived in your present home?

   _____ years

2. How many years have you lived in Rogers Park?

   _____ years

3. Do you

   _____ (1) Own your own home

   _____ (2) Rent your own home

   _____ (3) Live with someone, other than your husband, who owns or rents home

4. Other than yourself, how many people live with you in your home? _____

   If you do not live alone, what relation are these other people to you? Please indicate all that apply to your situation.

   _____ Relative - Husband

   _____ Relative - Children

   _____ Other Relative (Brother or Sister, for example)

   _____ Non-Relative

5. Are you currently employed outside your home?

   _____ (1) Yes

   _____ (2) No

Before we talk about your experiences with and attitudes about crime, we would like to ask you your attitudes about some other matters.

Now I would like to read you some statements. After each statement, please indicate whether you strongly agree, somewhat agree, somewhat disagree or strongly disagree.

6. I have often found that what is going to happen will happen.

_____ (1) Strongly Agree

_____ (2) Somewhat Agree

_____ (4) Somewhat Disagree

_____ (5) Strongly Disagree

7. It is hard for me to believe that chance or luck play an important role in may life.

_____ (1) Strongly Disagree

_____ (2) Somewhat Disagree

_____ (4) Somewhat Agree

_____ (5) Strongly Agree

8. What happens to me is my own doing.

_____ (1) Strongly Disagree

_____ (2) Somewhat Disagree

_____ (4) Somewhat Agree

_____ (5) Strongly Agree

9. I feel that I don't have enough control over the direction my life is taking.

_____ (1) Strongly Agree

_____ (2) Somewhat Agree

_____ (4) Somewhat Disagree

_____ (5) Strongly Disagree

10. When I make plans, I am almost certain that I can make them work.

_____ (1) Strongly Disagree

_____ (2) Somewhat Disagree

_____ (4) Somewhat Agree

_____ (5) Strongly Agree

11. It is not wise to plan too far ahead because many things turn out to be a matter of good or bad fortune anyway.

_____ (1) Strongly Agree

_____ (2) Somewhat Agree

_____ (4) Somewhat Disagree

_____ (5) Strongly Disagree

12. I feel that I have little influence over the things that happen to me.

_____ (1) Strongly Agree

_____ (2) Somewhat Agree

_____ (4) Somewhat Disagree

_____ (5) Strongly Disagree

13. Trusting to fate has never turned out as well for me as making a decision to take a definite course of action.

_____ (1) Strongly Disagree

_____ (2) Somewhat Disagree

_____ (4) Somewhat Agree

_____ (5) Strongly Agree

14. A person's home is one's castle, and I feel that way about mine.

_____ (1) Strongly Disagree

_____ (2) Somewhat Disagree

_____ (4) Somewhat Agree

_____ (5) Strongly Agree

15. I feel a strong sense of responsibility for the upkeep of my home.

_____ (1) Strongly Disagree

_____ (2) Somewhat Disagree

_____ (4) Somewhat Agree

_____ (5) Strongly Agree

16. I feel responsible for what happens in my home.

_____ (1) Strongly Disagree

_____ (2) Somewhat Disagree

_____ (4) Somewhat Agree

_____ (5) Strongly Agree

17. I have tried to arrange my home so that other people would know it belongs to me/us.

_____ (1) Strongly Disagree

_____ (2) Somewhat Disagree

_____ (4) Somewhat Agree

_____ (5) Strongly Agree

18. I feel responsible for what occurs in the building areas near my apartment (the hallways, for example).

_____ (1) Strongly Disagree

_____ (2) Somewhat Disagree

_____ (4) Somewhat Agree

_____ (5) Strongly Agree

19. I consider my neighborhood as merely a place to live and do not feel a part of it.

_____ (1) Strongly Agree

_____ (2) Somewhat Agree

_____ (4) Somewhat Disagree

_____ (5) Strongly Disagree

Now I'd like to ask you about your experience with crime in the last couple of years.

20. Do you personally know anyone, other than yourself, who has been robbed, beaten-up or has had a purse or wallet taken in the past couple of years?

_____ (3) Yes, in this neighborhood

_____ (2) Yes, not in this neighborhood

_____ (1) No

21. Do you personally know anyone other than yourself whose house has been burglarized in the past couple of years?

_____ (3) Yes, in this neighborhood

_____ (2) Yes, not in this neighborhood

_____ (1) No

In the past couple of years, have you personally been beaten up, robbed, had your purse or wallet stolen or your home burglarized?

_____ (2) Yes

_____ (1) No

If Yes: How were you victimized:_____

22. How often do you watch television shows involving police or crime?

_____ (1) Never

_____ (2) Rarely

_____ (3) Sometimes

_____ (4) Often

23. In your neighborhood, would you say that breaking into people's homes or sneaking in to steal something is

_____ (3) A big problem

_____ (2) Some problem

_____ (1) No problem

_____ (9) Don't know

24. How about people being robbed or having their purses or wallets taken on the street. Would you say that in your neighborhood this is

_____ (3) A big problem

_____ (2) Some problem

_____ (1) No problem

_____ (9) Don't know

25. Besides robbery, how about people being attacked or beaten up in your neighborhood? Is it

_____ (3) A big problem

_____ (2) Some problem

_____ (1) No problem

_____ (9) Don't know

Now I'm going to read you a list of neighborhood-related problems that exist in some parts of the city. I'd like you to tell me how much of a problem it is in your neighborhood. Is it a big problem, some problem, or almost no problem?

26. Groups of teenagers hanging out on the streets

_____ (3) Big problem _____ (2) Some problem

_____ (1) No problem _____ (9) Don't know

27. Buildings or storefronts abandoned or burned out.

_____ (3) Big problem _____ (2) Some problem

_____ (1) No problem _____ (9) Don't know

28. People using illegal drugs in the neighborhood.

_____ (3) Big problem _____ (2) Some problem

_____ (1) No problem _____ (9) Don't know

29. Vandalism, like kids breaking windows or writing on walls or things like that.

_____ (3) Big problem _____ (2) Some problem

_____ (1) No problem _____ (9) Don't know

Now I'd like to find out how likely you feel that certain things might happen.

30. How likely is it that in the next couple of years someone will try to rob you, beat you up or take your purse on the street in your neighborhood?

_____ (5) Very likely

_____ (4) Somewhat likely

_____ (2) Somewhat unlikely

_____ (1) Very unlikely

31. How likely do you think it is that someone will try to get into your house to steal something.

_____ (1) Very unlikely

_____ (2) Somewhat unlikely

_____ (4) Somewhat likely

_____ (5) Very likely

Now I would like to know how you feel in certain circumstances.

32. How safe do you feel in your house during the day?

_____ (1) Very safe

_____ (2) Somewhat safe

_____ (4) Somewhat unsafe

_____ (5) Very unsafe

33. How safe do you feel in your house during the night?

_____ (5) Very unsafe

_____ (4) Somewhat unsafe

_____ (2) Somewhat safe

_____ (1) Very safe

34. How safe do you feel in building areas near your apartment, the hallways for instance, during the day?

_____ (1) Very safe

_____ (2) Somewhat safe

_____ (4) Somewhat unsafe

_____ (5) Very unsafe

35. How safe do you feel in building areas near your apartment, the hallways for instance, during the night?

_____ (5) Very unsafe

_____ (4) Somewhat unsafe

_____ (2) Somewhat safe

_____ (1) Very safe

36. How safe do you feel, or would you feel, being out alone in your neighborhood during the day?

_____ (5) Very unsafe

_____ (4) Somewhat unsafe

_____ (2) Somewhat safe

_____ (1) Very safe

37. How safe do you feel, or would you feel, being out alone in your neighborhood at night?

_____ (1) Very safe

_____ (2) Somewhat safe

_____ (4) Somewhat unsafe

_____ (5) Very unsafe

38. How worried are you about your home, or how worried would you be, during the say (and no one else is home)?

_____ (3) Very worried

_____ (2) Somewhat worried

_____ (1) Not at all worried

39. How worried are you about your home or how worried would you be when away from home at night (and no one else is home)?

_____ (1) Not at all worried

_____ (2) Somewhat worried

_____ (3) Very worried

40. How much do you wish to move from your present neighborhood, if money were no object?

_____ (1) Not at all

_____ (2) Not very much

_____ (3) Somewhat desire

_____ (4) Desire very much

41. We are interested in the ways people spend their time. Please think about where you go in a typical week. This means visiting friends, shopping, going to church or appointments. How often would you say that you leave your house in a typical week?

_____ (1) 1 or 2 times

_____ (2) 3 to 5 times

_____ (3) 5 to 10 times

_____ (4) More than 10 times

Finally, we would like a little more background information. These questions are needed for statistical purposes.

The first questions are about your health. Which of these are you healthy enough to do without help?

_____ 42. Go to church or a meeting, or visit friends.

_____ 43. Walk up and down stairs to the second floor.

_____ 44. Walk half a mile (about four ordinary blocks).

_____ 45. Do heavy work around the house like washing windows or shovelling snow without help.

46. What is your marital status?

_____ (1) Single

_____ (2) Married

_____ (3) Widowed

_____ (4) Separated or divorced

47. What is the highest grade of school that you completed?

_____ (00) No formal education
_____ (01) Grades 1 to 8
_____ (02) Grades 9 to 11
_____ (03) High school grad
_____ (04) Vocational/Technical School
_____ (05) Some college
_____ (06) College grad
_____ (07) Post grad work
_____ (97) Don't know
_____ (98) NA

48. What is your religion?

_____ (1) Catholic
_____ (2) Protestant
_____ (3) Jewish
_____ (4) None
_____ (5) Other _____

We are trying to get a better picture of peoples' financial situations. We are not interested in the exact amounts, just the range. Taking into account all sources of income, which category includes your or your household's income for last year.

49. _____(1) Nothing
_____(2) $1-3,999
_____(3) $4,000-5,999
_____(4) $6,000-7,999
_____(5) $8,000-9,999
_____(6) Over $10,000
_____(8) NA

50. In past years, have you worked outside the home?

_____ (1) Yes
_____ (2) No

51. Do you own a car or have someone who can drive you places?

_____ (1) Yes

_____ (2) No

52. What is your age?

_____ years

_____ (99) No Answer

53. Race

_____ (1) White

_____ (2) Black

_____ (3) Other

54. Do you live in

_____ (1) CHA Housing

_____ (2) East Rogers Park

_____ (3) West Rogers Park

APPENDIX B

APPENDIX B

SAMPLE CHARACTERISTICS

This section provides a detailed description of the women interviewed and their characteristics on major variables.

A brief summary of the frequencies, percentages, means (or medians) and standard deviations associated with the traits of the sample is presented in Table B-1. Several facets of the respondents' life were of special interest. First, since a little more than 70 percent of the sample have worked outside the home in prior years, their retirement funds often represented the benefits of their own contribution to the social security system or a pension plan. Second, respondents' health was of interest to the extent medical problems or physical deterioration impinge on or preclude their ability to carry out day-to-day tasks independently. Although most respondents reported a current problem of some proportion or a chronic disease (heart trouble was prevalent), medical data were not collected. Rather, respondents were asked whether they could perform relatively easy tasks without the help of others. The number of tasks a respondent could accomplish on her own provided an index of the extent to which her general physical condition permitted carrying out ordinary responsibilities.

Almost 19 percent of the sample were able to do heavier housework such as washing windows. Another 53 percent were healthy enough to permit walking at least half a mile, negotiating a flight of stairs and visiting friends or their church without assistance. Of the remaining 23 women who were more restricted in their abilities, only

Table B-1

Characteristics of Survey Respondents:

Frequencies, Percentages and Related Statistics

Description	Frequencies	Percent of Sample	Mean or (Median)	Standard Deviation
Age (N = 80)			73.08	7.4
60 to 65 years	14	17.5		
66 to 70 years	18	22.5		
71 to 75 years	17	21.2		
76 to 80 years	20	25.0		
81 to 91 years	11	13.8		
Area of Residence				
CHA Housing	24	29.6		
East Rogers Park	37	45.7		
West Rogers Park	20	24.7		
Marital Status				
Never Married	7	8.6		
Married	13	16.0		
Widowed	58	71.6		
Divorced	3	3.7		
Years in Present Home			12.6	9.8
0 to 5 years	18	22.2		
6 to 10 years	29	35.8		
10 to 20 years	19	23.5		
20 to 30 years	14	13.6		
30 years and over	4	4.9		
Years in Rogers Park			23.25	15.51
0 to 10 years	22	27.2		
11 to 20 years	19	23.4		
21 to 30 years	19	23.5		
31 to 40 years	10	12.3		
41 or more	11	13.6		
Housing Status				
Own	14	17.3		
Rent	66	81.5		
Live with owner	1	1.2		

Table B-1 (continued)

Description	Frequencies	Percent of Sample	Mean or Median	Standard Deviation
Number of People in Home				
Respondent only	61	75.3		
Two	17	21.0		
More than two	3	3.7		
Income (N = 74)			(4.231)	
1) Nothing	0	0		
2) $1 - $3999	14	17.3		
3) $4000 - $5999	17	21.0		
4) $6000 - $7999	13	16.0		
5) $8000 - $9999	12	14.8		
6) Over $10000	18	22.2		
Worked in Prior Years				
Yes	57	70.4		
No	24	29.6		
Religion				
Catholic	39	48.1		
Protestant	12	14.8		
Jewish	30	37.0		
Education			(2.78)	
1) Grades 1 to 8	13	16.0		
2) Grades 9 to 11	19	23.5		
3) H. S. Graduate	30	37.0		
4) Vocational/ Technical School	8	9.9		
5) Some college	8	9.9		
6) College graduate	2	2.5		
7) Post graduate work	1	1.2		
Activity Level - Leave Home to Visit, Shop, etc.			(2.26)	
1) 0 to 2 times/week	17	21.0		
2) 3 to 5 times/week	31	38.3		
3) 5 to 10 times/week	32	39.5		
4) Over 10 times/week	1	1.2		
Current Employment				
Yes	7	8.6		
No	74	91.4		

Table B-1 (Continued)

Description	Frequencies	Percent of Sample	Mean or (Median)	Standard Deviation
Access to Car				
Yes	47	58.0		
No	34	42.0		
Health Scale - Tasks Done Without Assistance			(2.91)	
0) 0 tasks	5	6.2		
1) 1 task	5	6.2		
2) 2 tasks	13	16.0		
3) 3 tasks	42	53.1		
4) 4 tasks	15	18.5		

five could not do the simplest tasks of visiting or walking short distances unaided.

The generally good mobility of the sample was reflected in the regularity with which respondents left their homes to run the typical errands of shopping and appointments, participate in church and community activities or visit friends or relatives. More than forty percent of the ladies got out at least once a day or more, weather permitting. Another 38 percent left their homes most days or every other day. The remainder made few trips into the neighborhood, staying home all but one or two days a week. Several of these women could only go about ordinary errands with help. Over half of the sample (58 percent) had access to a car or driver at least some of the time, no doubt facilitating their ability to get around. Most were members of church-sponsored or -affiliated clubs for senior citizens (and were identified through these groups).

Because the three Rogers Park settings are quite heterogeneous, respondents from each group were expected to vary considerably on a number of characteristics. Both ANOVA and Chi-square procedures were used to test for differences. Where differences obtained in analysis of variance were significant, the Student-Newman-Keuls a posteriori test was applied to compare all possible pairs of group means.

Table B-2 presents a summary of the analysis of variance results. The findings for the Chi-square analyses are shown in Table B-3. As both together indicate, the three subsamples differ at the .05 probability level or better on nine of the demographic variables examined. Differences in a tenth just fail to meet significance.

Table-B-2

Comparison of Respondent Demographics by Residential Settings:

Analysis of Variance

Description	CHA M	East Rogers Park M	West Rogers Park M	df	F Value	p
1) Age	77.71	72.44	68.65	(2,77)	10.42	.001
2) Health	2.21	3.05	2.70	(2,78)	5.34	.007
3) Income	2.50	4.63	5.00	(2,71)	42.98	.001
4) Education	2.42	2.97	3.20	(2,78)	2.15	n.s.
5) Activity Level	2.25	2.22	2.15	(2,78)	.09	n.s.
6) Years in Rogers Park	25.33	20.35	26.10	(2,78)	1.21	n.s.
7) Years in Present Home	6.71	12.08	20.65	(2,78)	15.08	.001

Table B-3

Comparison of Respondent Demographics by Residential Setting:

CHI-Square Analyses

Description	% CHA	%East Rogers Park	%West Rogers Park	df	χ^2 Value	p
1. Marital Status				6	21.95	.001
Single	8.3	13.5	0.0			
Married	4.2	8.1	45.0			
Widowed	87.5	70.3	55.0			
Divorced	0.0	8.1	0.0			
2. Religion				4	22.01	.000
Catholic	29.2	75.7	20.0			
Protestant	16.7	10.8	20.0			
Jewish	54.2	13.5	60.0			
3. Housing Status				4	28.15	.000
Own	0.0	8.1	55.0			
Rent	100.0	89.2	45.0			
Live with other	0.0	2.7	0.0			
4. No. of People in Home				2	24.34	.000
One	95.8	83.8	35.0			
More	4.2	16.2	65.0			
5. Current Employment				2	5.55	.06
Yes	0.0	8.1	20.0			
	100.0	91.9	80.0			
6. Access to Car				2	9.30	.01
Yes	58.3	43.2	85.0			
No	41.7	56.8	15.0			
7. Prior Work History				2	.93	.63
Yes	66.7	75.7	65.0			
No	33.3	24.3	35.0			

Age. The differences in mean age between the three groups of women interviewed were highly significant (F (2,77)=10.42, $p < .001$). Women residing in the CHA unit tended to be the eldest with a mean age of almost 78 years; those living in East Rogers Park followed at 72.5 years. The youngest group, the West Rogers Park respondents, had a mean age of 69 years. The results of the Student-Newman-Keuls analysis indicated that the difference between each group is significant.

Health state. The results of the analysis of variance indicated that respondents differed in the extent to which they could perform simple tasks on their own (F (2,78)=5.34, $p < .007$). On the average, the women from East Rogers Park were the most able and could accomplish all but the most difficult responsibilities of heavy housework. The general physical condition of the CHA and West Rogers Park respondents tended to preclude negotiating flights of stairs, although the women in both settings could usually walk short distances. While neither the CHA nor the East Rogers Park women differed significantly from West Rogers Park respondents, they did differ significantly from each other. The CHA women were more dependent on assistance in performing simple functions.

Income. The difference in mean income between the CHA respondents and women living in the community was highly significant (F (2,71)=42.98, $p < .001$). The limited resources of CHA residents were part of the basis on which they qualified and were selected for this type of housing arrangement. On the average, both of the neighborhood groups had substantially greater available funds, and did not significantly differ

from each other.

Housing and living arrangements. Although the women did not differ in their length of residence in Rogers Park (F (2,78)=1.21, $p < .30$), the number of years they have spent in their present homes varied considerably and significantly (F (2,78)=15.08, $p < .001$). The mean tenure among the CHA group was 6.71. The building was open for tenancy for approximately nine years. The East Rogers Park respondents averaged a bit more than 12 years in the same dwelling, while the West Rogers Park women had nearly 21 years in one place.

Both the CHA and East Rogers Park women were predominantly renters (100 percent and 89.2 percent, respectively). By contrast, over half (55 percent) of the women in West Rogers Park were home owners. The difference in housing status was significant ($\chi^2(4)=28.15$, $p < .001$).

The CHA and East Rogers Park women were also more likely to be widowed ($\chi^2(6)=21.95$, $p < .001$) and living alone ($\chi^2(2)=24.34$, $p < .001$). More than 95 percent of the CHA respondents and almost 84 percent of the East Rogers Park respondents were maintaining homes solely for themselves. The widows numbered more than 87 percent in the CHA group and more than 70 percent among the East Rogers Park women. Almost half of the women in West Rogers Park were still married and two-thirds shared the household with at least one other person.

Religion. The CHA and West Rogers Park women were predominantly Jewish (54 percent and 60 percent, respectively), while the East Rogers Park respondents were primarily Catholic (75 percent). This distribution was significant ($\chi^2(4)=22.01$, $p < .001$).

Activity level. The women in West Rogers Park were more like to have access to a car ($\chi^2(2)=9.30$, $p < .01$) and to currently hold some sort of employment, either part- or full-time ($\chi^2(2)=5.55$, $p < .06$). Their younger age, better income and presence of a husband or other family member probably facilitated access to others who drive or the actual ownership of an automobile. The younger age of these women also accounted for the frequency (20 percent) of employment.

While 85 percent of the women in West Rogers Park had ready access to transportation, the incidences in the CHA and East Rogers Park samples were 58 percent and 43 percent, respectively. In many cases, the transportation available to the CHA resident was a service provided by one of the agencies operating within the CHA unit.

Despite the differences found in respondents' physical abilities, age, income and access to transportation, the sample did not differ in their general level of activity. The presence of programs, similar others in close proximity and availability of transportation no doubt assisted the CHA resident in leaving her home to conduct day-to-day business and visiting. The East Rogers Park women, despite their age and reduced opportunity to secure transportation, were healthier and could walk the distances necessary to visit, shop and participate in community or church events.

Prior experiences. No differences were found in the educational level attained nor the frequency of previous employment histories in the samples.

A review of the results suggest that most of the differences found are attributable to the unique characteristics of the women interviewed from West Rogers Park. Many of these differences can be explained by their younger years.

Correlational and ANOVA analyses were used to investigate the relationships between respondent characteristics and their attitudes and experiences.

Locus of control. The correlates of beliefs about personal control are summarized in Table B-4. The findings for beliefs about the role of luck in one's life are presented in Table B-5. The results suggest that few circumstances of respondents' lives measured in this study are associated with each constellation of beliefs.

In general, those who de-emphasized or denied the importance of luck in life events and those who maintained a perception of personal control tended to be

(a) better educated,

(b) active in visiting and going about day-to-day business, and

(c) experienced a lessened desire to move from their present neighborhood.

The presence of ready transportation was also associated with diminished belief in luck. There was a trend for previous and current employment to be associated with a heightened sense of personal control, though these relationships failed to reach significance. Other features which might be expected to influence one's ideas of luck or feelings of control did not appear to be related to either belief system.

Table B-4

Correlates of Beliefs about Personal Control

Correlational Analyses

		N	r	p
1.	Age	80	-.01	n.s.
2.	Income	74	.09	n.s.
3.	Education	81	.25	.01
4.	Health	81	.14	n.s.
5.	Activity Level	81	.37	.001
6.	Desire to Move	81	-.32	.002
7.	Number of Years in Rogers Park	81	-.01	n.s.
8.	Number of Years in Present Home	81	.03	n.s.

Analysis of Variance

		df	F	p
1.	Housing Status: Own/Rent	(2,78)	1.74	n.s.
2.	Number of People in Home	(1,79)	.06	n.s.
3.	Current Employment	(1,79)	3.44	.068
4.	Marital Status	(3,77)	1.09	n.s.
5.	Religion	(2,78)	1.14	n.s.
6.	Prior Employment History	(1,79)	2.71	.10
7.	Access to Transportation	(1,79)	.95	n.s.
8.	Personal Victimization	(1,79)	.06	n.s.

Table B-5

Correlates of Chance Beliefs

Correlational Analyses

		N	r	p
1.	Age	80	-.07	n.s.
2.	Income	74	-.14	n.s.
3.	Education	81	-.26	.009
4.	Health	81	.08	n.s.
5.	Activity level	81	-.23	.02
6.	Desire to move	81	.29	.005
7.	Number of years in community	81	-.04	n.s.
8.	Number of years in present home	81	-.03	n.s.

Analysis of Variance

		df	F	p
1.	Housing Status: Own/Rent	(2,78)	.34	n.s.
2.	Number of people in home	(1,78)	.61	n.s.
3.	Current Employment	(1,79)	.01	n.s.
4.	Marital Status	(3,77)	1.19	n.s.
5.	Religion	(2,78)	1.87	n.s.
6.	Prior Employment History	(1,79)	.36	n.s.
7.	Access to Car	(1,79)	11.76	.001
8.	Personal Victimization	(1,79)	.85	n.s.

Territoriality. As shown in Table B-6, respondents who exhibited a strong territorial sense tended to be

(a) active in visiting and going about day-to-day business,

(b) to experience less desire to move from their present neighborhoods,

(c) were more likely to have worked outside the home in previous years, and

(d) were employed now.

There was a trend for better-educated and those have ready access to transportation to express a heightened sense for their homes and community, though these relationships were only marginally significant.

Vicarious victimization. The extent to which respondents were exposed to or sought out the victimization experiences of others was related to their age and activity level. The older the woman, the less likely she was to know victims and/or watch television programs involving crime ($r(79)=.25$, $p < .01$). The more active she was, the more likely she was to share in victimization knowledge ($r(80)=.28$, $p < .006$). Since age and activity level were strongly related ($r(79)=.22$, $p < .025$), one may assume that younger women tended to have more opportunity to encounter various kinds of information about crime.

Risk of street crime. Respondents were asked to estimate the likelihood of being robbed, assaulted or having a purse taken in the neighborhood in the next couple of years. As indicated in Table B-7, over 71 percent concluded that at least an attempt by someone was possible. Almost 41 percent evaluated the situation as somewhat likely.

Table B-6

Correlates of Territoriality

Correlational Analyses

		N	r	p
1.	Age	80	.08	n.s.
2.	Income	74	.13	n.s.
3.	Education	81	.17	.07
4.	Health	81	.08	n.s.
5.	Activity Level	81	.42	.001
6.	Desire to move	81	-.54	.001
7.	Number of years in community	81	-.02	n.s.
8.	Number of years in present home	81	.09	n.s.

Analysis of Variance

		df	F	p
1.	Housing status: Own/Rent	(2,78)	2.05	n.s.
2.	Number of people in home	(1,79)	.23	n.s.
3.	Current Employment	(1,79)	4.98	.03
4.	Marital Status	(3,77)	.82	n.s.
5.	Religion	(2,78)	1.06	n.s.
6.	Prior Employment History	(1,79)	7.86	.006
7.	Access to Transportation	(1,79)	3.79	.06
8.	Personal Victimization	(1,79)	1.12	n.s.

Table B-7

Risk of Street Crime:

Estimated Likelihood of Robbery, Assault or Purse Snatch

		Frequency	Percent
1.	Very unlikely	3	3.7
2.	Somewhat unlikely	15	18.5
3.	50-50 Chance	5	6.2
4.	Somewhat likely	33	40.7
5.	Very Likely	25	30.9

Another 30 percent felt that their chance of victimization was very likely. In general, those who perceived a greater likelihood of becoming a victim of street crime tended

(a) to be younger,

(b) to have lived fewer years in their present homes,

(c) to be newer residents of Rogers Park,

(d) to have more desire to move from the community, and

(e) were less likely to have ready access to private transportation.

There was also some trend for the less well-educated and healthier respondents to perceive more threat while out in the neighborhood. However, these relationships were only marginally significant. A brief summary of the correlates of risk assessment is presented in Table B-8.

Feelings of safety. Among the women tested, feelings of greater safety through several locales tended to be associated with

(a) being older,

(b) better-educated,

(c) active in pursuing day-to-day business and visiting outside the home,

(d) having worked outside the home in previous years,

(e) having ready access to private transportation, and

(f) expressing less desire to move from the Rogers Park community.

A brief summary of these relationships is presented in Table B-9. The women who felt safest seemed to have more experience with many settings though prior employment and remaining active outside the home. A

Table B-8

Correlates of Risk Assessment: Street Crime

Correlational Analyses

		N	r	p
1.	Age	80	-0.27	.008
2.	Years in present home	81	-0.20	.04
3.	Years in Rogers Park	81	-0.24	.01
4.	Desire to move	81	0.26	.009
5.	Education	81	-0.16	.07
6.	Health	81	-0.16	.08

Analysis of Variance

		df	f	p
1.	Access to private transportation	(1,79)	5.46	.02

Table B-9

Correlates of Safety Feelings

Correlational Analyses

		N	r	p
1.	Age	80	0.20	.04
2.	Education	81	0.27	.008
3.	Activity Level	81	0.40	.001
4.	Desire to Move	81	0.52	.001

Analysis of Variance

		df	F	p
1.	Previous work history	(1,79)	6.62	.01
	Yes M = 22.05 No M = 19.25			
2.	Access to private transportation	(1,79)	9.60	.003
	Yes M = 22.51 No M = 19.44			

private transportation source probably helped negotiate sites that otherwise might be more threatening.

DISCUSSION

A common thread apparent in the findings was the importance of respondent's ready access to a private transportation source. To review briefly, those having regular use of a car or other transportation

(a) perceived the environment as more predictable,

(b) experienced a heightened sense of territoriality about their homes and neighborhoods,

(c) assessed the probability of becoming a victim of street crime as less likely, and

(d) felt safer overall in a number of settings.

The available transportation source seemed to have the capacity to insulate the respondent from disruptive outside elements without alienating her from the community.

The automobile permits one to travel comfortably and quickly through areas that might otherwise be difficult or threatening. The individual is protected. To many, the car is almost a second home -- one that aids in negotiating uncertain settings. Ready access to private transportation may encourage the perception that the environment is orderly and less a source of hazards. Among elderly women an automobile seems to have singular importance in the confidence they have in moving freely about their neighborhoods.

APPENDIX C

APPENDIX C

RELIABILITY ASSESSMENT AND SCALE CONSTRUCTION: LOCUS OF CONTROL, TERRITORIALITY, VICARIOUS VICTIMIZATION AND FEELINGS OF SAFETY

Tables C-1 through C-4 summarize the relevant statistics associated with the factor and coefficient alpha assessments of the locus of control, territoriality, vicarious victimization and feelings of safety item sets. Factors may be thought of as accounting for a certain proportion of the variance in a given item. Although an item may load on more than one factor, its highest loading suggests which factor acts as the item determinant. As a consequence, the item loading is shown only for the apparent determining factor. The loading itself represents the correlation coefficient between the item and the factor, and when squared, indicates the amount of item variance accounted for by the factor. Generally, only loadings of .30 or better are presented.

The proportion of variance in an item set accounted for by each individual factor is shown as "% Total Variance". By adding together, the joint or cumulative proportion of variance accounted for by two or more factors may be derived. These statistics indicate both the relative importance of each factor and their combined power in "explaining" the item sets. The coefficient alpha, a measure of internal consistency, follows for those items loading on each factor. Where two or more subscales have been developed (based on differential clustering of items among several factors), the alpha of all items taken together is presented for comparison as "Total Coefficient Alpha".

Locus of control. Eight Likert-like items were included in the survey instrument to assess respondent's locus of control. Two significant factors were identified and retained for rotated solution. The first factor accounted for 41.5 percent of the total variance in the data set; the second factor for 14.6 percent. The terminal solution was accomplished with oblique rotation.

Inspection of the loadings in Table C-1 suggests that Factor 1 represents beliefs individuals hold about personal control over their life circumstances. Factor 2 seems to deal with the role that chance or luck play in the respondent's life. These factors are not entirely independent, correlating moderately at -.53.

Items loading on Factor 1 form a scale with an alpha coefficient of .76, indicating moderately high reliability. Combining the items loading on Factor 2 results in an alpha coefficient of .69. Both values are somewhat lower than might be obtained by treating all eight items as belonging to one scale (alpha=.79). The increase in information, meaningful interrelationships among items and apparent robustness of the two shorter subscales seem to warrant this relatively minor loss of consistency. These scales are termed Control and Chance, respectively.

Territoriality. The questionnaire included six Likert-like items to measure respondent's feelings of territoriality. Only one significant factor emerged from initial factoring. This factor accounted for 55.7 percent of the total variance in the item set.

The alpha coefficient for all six items taken together is moderately high at .79. Inspection of loadings as shown in Table C-2 suggests that

Table C-1

Locus of Control Factor Analysis and Reliability Results
After Oblique Rotation

Measurement Item	Factor Loadings: Factor 1: Control	Factor 2: Chance
1. What is going to happen will happen.		.72
2. Chance or luck play an important role in my life.		.49
3. What happens to me is my own doing.	-.48	
4. I don't have enough control over the direction my life is taking.	-.91	
5. When I make plans, I am almost certain that I can make them work.	-.55	
6. It is not wise to plan too far ahead.		.47
7. I have little influence over things that happen to me.	-.75	
8. Trusting to fate has never turned out as well for me.		.71
Total Alpha Coefficient .79		
% Total Variance	41.5	14.6
Subscale Alpha Coefficient	.76	.69

N=81

Table C-2

Territoriality Factor Analysis and Reliability Results

Measurement Items	Factor Loadings Factor 1
1. A person's home is one's castle, and I feel that way about mine.	.86
2. I feel a strong sense of responsibility for the upkeep of my home.	.75
3. I feel responsible for what happens in my home.	.72
4. I have tried to arrange my home so that other people would know it belongs to me.	.76
5. I feel responsible for what occurs in building areas near my apartment.	.55
6. I consider my neighborhood as merely a place to live and do not feel a part of it.	.41
% Total Variance	55.7
Alpha Coefficient	.79

N=81

the last two items are correlated to the factor less well than the others. Their content also differs noticeably in their scope by dealing with areas away from the home. The simple adding together of item responses may misrepresent the data. To better reflect item interrelationships, the contribution of an item to the total score has been corrected. Factor loadings have been used to weight items before their combination as follows:

$$(.86(M_{\text{item 1}} - \text{Item 1}/SD_{\text{item 1}})) + (.75(M_{\text{item 2}} - \text{Item 2}/SD_{\text{item 2}})) + \ldots (.41(M_{\text{item 6}} - \text{Item 6}/SD_{\text{item 6}})).$$

An item influences the total score to the extent the factor acts as its determinant. The scale is referred to as Territoriality.

Vicarious victimization experiences. There are three items related to the respondent's indirect or vicarious exposure to crime and victims. As shown in Table C-3, one significant factor emerged from initial factoring and rotation was unnecessary. This factor accounted for 53.7 percent of the variance in the item set. The items combined have an alpha coefficient of .56, marginally meeting the criterion for scale development, and are termed Vicarious Victimization.

Feelings of safety. Eight items were used to assess respondent's feelings of safety in various settings and worry about her home when away. Two factors emerged with initial factoring, accounting for 50.9 percent and 13.9 percent of the variance, respectively. The terminal solution was accomplished with oblique rotation.

As shown in Table C-4, safety items loaded on the first factor;

Table C-3

Vicarious Victimization Factor
Analysis and Reliability Results

Measurement Items	Factor Loadings Factor 1
1. Know a robbery, assault or purse-snatch victim	.36
2. Know a burglary victim	.99
3. Watch crime programs on television	.40
% Total Variance	53.7
Alpha Coefficient	.56

N=81

Table C-4

Feelings of Safety and Worry:
Factor Analysis and Reliability Results

Measurement Items	Factor Loadings	
	Factor 1	Factor 2
1. Feelings of safety at home in the day	.79	
2. Feelings of safety at home at night	.78	
3. Feelings of safety in building areas or grounds in the day	.82	
4. Feelings of safety in building areas or grounds at night	.69	
5. Feelings of safety in the neighborhood during the day	.47	
6. Feelings of safety in the neighborhood at night	.26	
7. Worry about home when away in the day		.90
8. Worry about home when away at night		.89
% Total Variance	50.9	13.9
Alpha Coefficient	.79	.88

N=81

the worry items on the second. These factors are not entirely independent, correlating moderately at -.62.

Items loading on Factor 1 form a scale with an alpha coefficient of .79, indicating moderately high reliability. Combining the items loading on Factor 2 results in an alpha coefficient of .89. An intermediate alpha value of .85 may be obtained by treating all items as belonging to one scale. However, although the factors are clearly related and their joint reliability very promising, the distinction of feelings about one's personal safety and worries about one's property is considered to be of sufficient theoretical and practical import to maintain. The Safety scale formed from Factor 1 items has been retained.

Discussion. The locus of control items adapted for the present study were a subset of those developed by Rotter (1966) and identified as part of a unidimensional subscale termed Personal Control by Gurin et al. (1969). Although Gurin and his colleagues constructed the Personal Control subscale on the basis of factor analytic findings, no information was available about tests for its reliability.

The analyses performed here identify items as clustering on two factors of moderately high reliability, rather than the one found in the work of Rotter (1966) and Gurin et al. (1969). Control refers to the beliefs one holds in one's own control in the environment. Chance refers to beliefs held about the potency of "luck" or "fate" in influencing the circumstances of one's life.

The discrepancies between this work and previous findings may be explained at least in part by changes in response format adopted for

the present study. The standard format in prior work has paired an "internal" item with an "external" item. Respondent is asked to choose which statement of the two better represents his position.

In the present study, all items were received individually. Respondents' task was to indicate the extent to which they agreed with each statement.

The use of the forced-choice format appears to rest on the assumption that Chance and Control anchor opposite ends of the same continuum. The respondent varies toward the chance polarity to the extent he opts for chance items over control items, and vice versa. By eliminating the opportunity to deal with both statements of a forced-choice pair, an individual's response may actually represent an evaluation of the relative potency and importance of choice or chance in his life rather than an endorsement of one system of beliefs over another.

While the issues of chance and control do appear to be related, the findings reported here support their principal independence. Those who perceive themselves as exercising personal control tend to discount the influence of luck, and vice versa (r=-.49). However, the evaluation of the role luck has played in one's life is basically made along another dimension than that used to evaluate personal control over life circumstances. Maintaining the distinction found between control and chance appears to be advisable in planning later research using the construct of locus of control.

The six Territoriality items were developed by Patterson (1977) as part of his examination of territorial marking behavior and fear of crime among the elderly. The scale was constructed to assess respondent's

perceptions of his own territoriality.

Patterson's efforts to evaluate the scale centered primarily on determining whether the perception of territoriality is associated with the extent of marking behavior. The problem was approached with ANOVA procedures, where respondents were grouped as high or low on marking behavior and subsequently analyzed for differences in perceived territoriality. A significant effect for markers was found. Those who extensively "marked" their property also perceived themselves as being more territorial, and vice versa. The findings supported the use of perceptions as indications of actual behavior.

In pursuing this research course, Patterson's focus was turned more to validity issues rather than the internal integrity of the scale. While six items were used to measure "Perceived Territoriality", only five were combined as a scale and assessed in relation to marking behavior. Neither the basis for combining the five items nor the decision to drop one were discussed in the published findings. As a consequence, reliability information was not previously available.

The analyses reported in the present study suggest that, in fact, the six item set is unidimensional. All items load principally on one factor. The influence of the weaker items has been corrected with a weighting procedure, before their combination, to produce a scale of moderately high reliability. The inclusion of all six items broadens the range of available information about perceived territoriality without overvaluing the contribution of weaker items. The domain of environments covered in the scale widens from the home and its grounds to the neighborhood setting.

The question of scaling personal knowledge of victims and vicarious exposure to crime has received prior research attention. The Reaction to Crime Project (1977), conducted by the Center for Urban Affairs, Northwestern University, approached the issue from two perspectives. Respondents to a large telephone survey in three major cities were asked whether they personally knew victims of crime and whether the victims were local or from outside the neighborhood. The four types of crimes referenced were burglary, robbery, assault and rape.

In its efforts to expand the concept of victimization, the breadth of respondent's exposure to local crime was treated separately from the proximity of known victims. The number of different crimes for which a local victim was known was calculated for the first instance. This type of item combination served to develop a new counter-variable rather than constituting scale construction.

The proximity of the respondent to known victims was ordinarily determined by whether an individual knew no victims, only a non-local victim, or a local victim within each crime category. The items were analyzed by calculating an alpha coefficient for the set. Although the items were significantly and positively interrelated, the resulting alpha of .52 was considered of low magnitude. Combining the items into a more general scale was thought to provide only limited utility.

The concept of vicarious victimization was treated in the present study more like the Reaction to Crime proximity analyses than the evaluation of respondent's exposure to various crimes. Respondent's

knowledge of victims were dichotomized by personal crime (robbery, purse-snatch and assault) and property crime (burglary). The distinction between the locale of the known victim was retained. In addition, respondents were questioned about their exposure to television media crime and victimization. The analysis performed on this three item set obtained an alpha value only slightly larger in magnitude than that found in the Reactions to Crime data set. However, the size of the sample used in the present study and the differences in item number and content supported the viability of scaling. The findings provided evidence for the concept that there is some consistency with which an individual is exposed to or seeks out the victimization experiences of others.

The concept of fear has received little rigorous treatment in the developing literature on people's reactions to crime. Attempts to clarify the issue of what fear is (and thus, how it is measured) are primarily derived from theoretical considerations. In one of the earliest efforts, Furstenburg (1971) made a distinction between "fear" and concern for crime-as-a-community problem. Fear was defined by the individual's assessment of his risk of victimization. Fowler and Mangione (1974) elaborated on Furstenburg's conceptualization by differentiating between the perceived threat (risk) experienced by an individual and the resulting anxiety. More recently, DuBow, McCabe and Kaplan (1978) also argued that fear is an affective response and represents the impact of crime on the individual. According to these latter authors, fear is appropriately measured by ask-

ing respondents how afraid, anxious or worried they are.

To test the utility of these distinctions, Baumer (1979) factor analyzed 16 items which were intended to measure the magnitude of local crime problems, perceived likelihood of being victimized, feelings of safety and worry about victimization. Two factors were identified and empirically supported differentiating concern for crime as a unique concept. However, the risk/affective distinction was not sustained. Baumer concluded that feelings of safety, worry and risk judgments represented the same dimension and could be said to be interchangeable measures of fear of crime.

Compelling theoretical and practical considerations have argued for maintaining independent measures of feelings of safety and risk assessment in the present study. Ratings of risk or vulnerability seem to involve a cognitive component not apparent when respondents address more affective states, such as feelings of safety or worry. Fowler and Mangione (1974) suggest that risk assessments are precursors to the degree of anxiety individuals experience. As such, risk or perceived threat is not directly interpretable as an indicator of anxiety. The moderate relationship between risk and felt safety (r=-.42) found in the sample of elderly women is lower than might be predicted if these measures are interchangeable. As a consequence, the cognitive/affective dichotomy has been retained; felt safety has been used as the indicator of fear of crime.

APPENDIX D

APPENDIX D

FEELINGS OF SAFETY IN ELDERLY WOMEN: A GUTTMAN ANALYSIS

INTRODUCTION

The Safety scale was intended to measure respondents' feelings of safety in three locales under two time conditions -- daytime or evening. Generally, the women tended to feel somewhat safe to very safe in their homes at any time and other building areas during the day. Feeling safe in building areas at night and out in the neighborhood during the daytime was somewhat more difficult. Overall, though, they felt more safe than unsafe in these latter sites. Few, if any, of the women ever felt anything but very unsafe in the neighborhood alone at night.

Respondents were compared for their feelings of safety by area of residence. Across all settings and under both time conditions, no differences were found ($F(2,78)=2.00$, n.s.). An analysis of individual items, however, did reveal significant variation in specific settings. A brief summary of these findings is presented in Table D-1. The differences centered on feelings of safety in the home at any time and in other building areas during the evening. Neither the CHA nor the East Rogers Park women varied significantly from West Rogers Park respondents in feelings of safety in the home. The CHA and East Rogers Park women did differ from each other, though. CHA women tended to feel safer in their homes.

There was also a significant finding for feelings of safety in

Table D-1

Comparison of Respondents' Feelings of Safety
by Residential Setting

	Feelings of Safety in...	CHA M*	EAST ROGERS PARK M*	WEST ROGERS PARK M*	df	F	p
1.	Home during daytime	4.96	4.41	4.70	(2,78)	4.42	.02
2.	Home at night	4.75	3.76	4.20	(2,78)	6.35	.003
3.	Building areas during daytime	4.58	4.11	4.20	(2,78)	1.58	n.s.
4.	Building areas at night	3.67	2.89	2.70	(2,78)	2.98	.06
5.	Neighborhood during daytime	3.42	3.97	3.70	(2,78)	1.42	n.s.
6.	Neighborhood at night	1.37	1.24	1.45	(2,78)	.51	n.s.

*Item values may range from 1 to 5, with higher values indicating increasing feelings of safety.

building areas at night. Although the CHA women consistently felt safer in their housing complex than either of the other groups, the Newman-Keuls analysis failed to identify the pairs of groups which differ in regard to building locales.

Careful scrutiny of the Safety items themselves and the way the women responded suggested that further analysis for Guttman scaling might be profitable. Guttman scaling shares with factor analysis and a number of other techniques the objective of identifying regularities or underlying continuums in a data set. However, this procedure has the unique approach of testing whether the interrelationships among items meet two stringent properties defining a Guttman scale -- unidimensionality and cumulativeness. That is, behaviors or attitudes must first cluster together along one dimension only. Then, it is assumed that items may be ordered in their difficulty. Cumulativeness is operationalized when respondents who perform "difficult" behaviors or endorse "difficult" attitudes also perform or endorse all easier behaviors or attitudes. The reverse is also true. Those who do not "pass" an easier behavior do not "pass" those which are more difficult.

A review of the Safety items indicated that the Guttman procedure was an appropriate evaluation tool. Some ordering or increasing levels of difficulty were intuitively apparent. It hardly seemed likely that a respondent who felt unsafe in her own home would feel safe in other building areas or in the neighborhood at large. The unidimensionality of the items was supported with the findings from factor analysis. They

clustered on a single factor and had an alpha coefficient of .79, indicating moderately high reliability.

Guttman scales are principally evaluated with two statistics. The coefficient of reproducibility indicates the extent to which respondent's score predicts his response pattern. By convention, values of .9 or better are recommended as evidence of a valid Guttman scale. The coefficient of scalability is taken to reflect the extent to which a scale is unidimensional and cumulative. A value of .6 or better is considered necessary to meet this criterion.

To facilitate the analysis in the present data set, ratings of somewhat and very unsafe were rated as failures; somewhat and very safe were passes. As a consequence, the number of cutting points was reduced to one. It was felt that the integrity of the data was maintained and clarity achieved at the cost of a minor loss of information. Table D-2 through Table D-4 summarize the relevant statistics associated with the Guttman analyses. Items were ordered according to their statistically determined difficulty. The most difficult item was listed first, with the following items progressively easier. The numbers of respondents passing and failing the item were shown in the first two columns. Two types of errors were also presented. The number of respondents who failed the item, but should have passed based on passing more difficult items, was shown in the third column. The number who passed, but should have failed based on failing easier items, was shown in the last column. The coefficients of reproducibility and scalability were shown below item statistics.

RESULTS AND DISCUSSION

The responses of the sample as a whole were analyzed. As shown in Table D-2, the obtained coefficient of reproducibility of .93 indicated that a respondent's scale score was highly predictive of her general pattern of responding. A coefficient of scalability of .64 reaffirmed the scale's basic unidimensionality and supported its cumulativeness. The item set Safety met the criteria of a valid Guttman scale.

The statistically determined ordering of the items appeared reasonable. Respondents were more apt to feel safe at home and on home grounds during the day before feeling safe in the home at night. Feeling safe in their neighborhood during the day was a more difficult step, but easier than feeling safe at night in building areas away from the home or in the neighborhood.

Most of the errors in response pattern occurred in feelings of safety in the neighborhood during the day and in building areas at night. This may be explained, in part, by possible differences in response patterns by a particular group of subjects. Respondents living in CHA housing, for example, felt significantly safer in building areas at night than did community residents ($F(2,78)=2.98$, $p < .06$). The CHA housing is a secured premise in which one was likely to meet only other elderly in public areas. The CHA group did not differ from the community group in feelings of safety in the neighborhood during the day. The difference in the CHA group mean values for each item was toward feelings of greater safety in building areas at

Table D-2

Guttman Scale Analysis of Safety Items

Items*	#Passed Item	#Failed Item	#Failed-Should Have Passed	#Passed-Should Have Failed
1. Safe in Neighborhood at night	5	76	0	0
2. Safe in building areas at night	43	38	0	0
3. Safe in Neighborhood during day	59	22	8	5
4. Safe in home at night	70	11	4	2
5. Safe in building areas during day	71	10	4	0
6. Safe in home during day	77	4	0	0

Coefficient of Reproducibility 0.93
Coefficient of Scalability 0.64

N=81

*Items are ordered from the most difficult (least passed) to the easiest (most passed)

night than in the neighborhood during the day. The reverse was found among respondents living in the community. As a consequence, the CHA respondent was expected to pass the more difficult 'building areas' item regardless of her score for the 'daytime neighborhood' item. Then, too, she was expected to fail the easier 'daytime neighborhood' item while passing the more difficult item.

Separate analyses were undertaken on each group of respondents to determine if, in fact, different response patterns were being used by women in different housing arrangements. A second concern was whether the resulting scales were improvements on the respondents' joint scale. The procedures used were identical to that of the larger analysis.

In turning first to the CHA group, the obtained coefficient of reproducibility of .96 indicated that a respondent's scale score was highly predictive of her general pattern of responding and constituted some improvement on the joint scale. The value of .68 obtained as a coefficient of scalability also bettered that found in the combined group scale and seemed to represent an enhanced property of cumulativeness.

More interesting, however, was the reordering of items that had occurred. Respondents living in CHA housing tended to feel less safe as they moved from their own homes to building areas within their housing complex to the neighborhood at large. At the same time, they felt safer during the daytime than at night within each location. The response regularities found in this group were clearly different than those found in the group as a whole. Feeling safe in the neighborhood, whether at night or day, was more difficult a task than feeling safe on the CHA

Table D-3

Guttman Scale Analysis of Safety Items

Respondents in CHA Housing

Feelings of Safety in...*	#Passed Item	#Failed Item	Errors: #Failed-Should Have Passed	Errors: #Passed-Should Have Failed
1. neighborhood at night	2	22	0	0
2. neighborhood in daytime	15	9	0	3
3. building areas at night	17	7	3	0
4. building areas in daytime	23	1	0	0
5. home at night	24	0	0	0
6. home in daytime	24	0	0	0

Coefficient of Reproducibility 0.96
Coefficient of Scalability 0.68

N=24

*Items are ordered from the most difficult (least passed) to the easiest (most passed).

premises at any time.

The findings for the community women substantially mirrored the analysis for the entire group. No item reordering occurred. The coefficient of reproducibility showed a minimal increase to .94. However, with the removal of CHA respondents, the coefficient of scalability jumped to .70. The decrease in the proportion of errors, attributable to the divergent response pattern of CHA women, resulted in an increasingly cumulative scale.

Overall, the development of two Guttman scales according to respondents' living accommodations provided only some statistical improvement over a joint scale. Unidimensionality was clearly present, as was consistency in response. However, the presence and identification of particular response patterns, grounded in a major life circumstance, was apparent only when both scales were available. The increase in information gained seemed to warrant the retention of the separate analyses.

The unique patterns found reflected significant differences in perceived safety in specific locales. The differences centered on feelings of safety in the home at any time and on building grounds during the evening. The women occupying senior citizen apartment units consistently expressed greater feelings of security in these settings than women residing in the larger community.

Of interest, too, was the somewhat greater discomfort experienced by public housing women traveling throughout their neighborhood during the day. Although the difference failed to reach sig-

Table D-4

Guttman Scale Analysis of Safety Items

Respondents Residing in Community

Feelings of Safety in...*	#Passed Item	#Failed Item	Errors: #Failed-Should Have Passed	Errors: #Passed-Should Have Failed
1. neighborhood at night	3	54	0	0
2. building areas at night	26	31	0	4
3. neighborhood in daytime	44	13	3	5
4. home at night	46	11	4	1
5. building in daytime	48	9	3	0
6. home in daytime	53	4	0	0

Coefficient of Reproducibility 0.94
Coefficient of Scalability 0.70

N=57

*Items have been ordered from the most difficult (least passed) to the easiest (most passed).

nificance, it was noticeable and completed a response pattern noted in the research of Sherman, Newman and Nelson (1975). That is, even as they tended to experience greater unease in the larger community, residents of age-segregated housing for the elderly were more secure in their homes and on housing premises than those living in settings side-by-side with younger people. The overwhelming presence of "like others" in very close proximity seemed to provide a buffer against exterior threats. The "outside world", by contrast, was seen as more alien and problematic. Public housing women seemed to experience at least some threat from the neighborhood; the community saw threat in the night.

CONCLUSION

The present findings provided additional evidence on the influence of respondents' housing arrangements. As indicated elsewhere (see Appendix B), tenants in the senior citizens' complex

(a) suffered the least incidence of personal victimization, and

(b) were less exposed to the victimization experiences of others

even while perceiving the risk of street crime no differently than women in the community-at-large.

The security they felt in their homes seemed to result from the ability of the complex to insulate the respondents from outside elements. The housing complex allowed the tenant an almost self-sufficient existence apart from the greater community. Interesting and diverse programs, social service agencies, weekly grocery shopping trips, milk deliveries and the presence of like others were convenient for those choosing

to take advantage of the available resources. Unlike others interviewed, the tenants had little or no desire to ever relocate from the community. However, their security seemed to have been achieved at the cost of some alienation from the neighborhood.

APPROVAL SHEET

The thesis submitted by Janice Normoyle has been read and approved by the following committee:

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The final copies have been examined by the director of the thesis and the signature which appears below verifies the fact that any necessary changes have been incorporated and that the thesis is now given final approval by the Committee with reference to content and form.

The thesis is therefore accepted in partial fulfillment of the requirements for the degree of Master of Arts.

April 9, 1980
Date

Jeanne Foley
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